COUNSELS AND IDEALS

FROM THE WRITINGS OF

WILLIAM OSLER

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COUNSELS AND IDEALS

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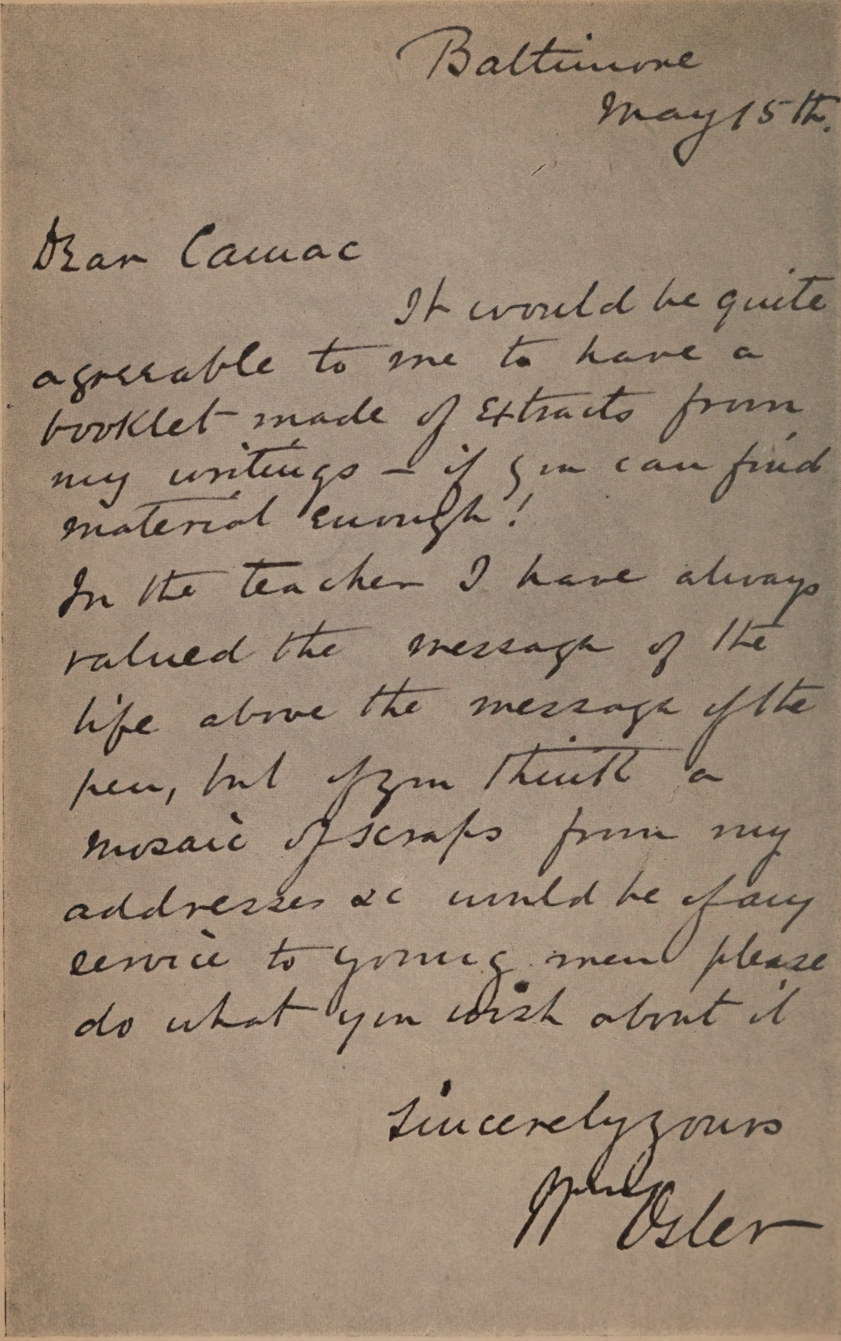

Baltimore
May 15th.

Dear Camac

It would be quite agreeable to me to have a booklet made of Extracts from my writings — if you can find material enough!

In the teacher I have always valued the message of the life above the message of the pen, but if you think a mosaic of scraps from my addresses &c would be of any service to young men please do what you wish about it

Sincerely yours
Wm Osler

COUNSELS AND IDEALS

FROM THE WRITINGS OF

WILLIAM OSLER

OXFORD
LONDON, EDINBURGH AND GLASGOW
HENRY FROWDE
1905

DEDICATED

TO

GRACE REVERE OSLER

IT is now generally recognized that an important, very important, part of education, academic, technical, and professional, is the *personal influence* of the teacher upon the taught. Be the building, the laboratory, the equipment ever so perfect, there yet must be this essential, *personal contact between teacher and pupil.*

From personal association of teacher and pupil follows that much talked of and sought for element *atmosphere.* With an atmosphere an institution becomes a seat of learning, at which both teacher and taught gain knowledge, and establish principles of thought and conduct, and to which they return eager to breathe again its ' inspiration.'

Such is the history of the Dutch, French, and English Schools, whose power may be traced to the *individual influence* of the Masters of the Italian School. Close upon these, indeed almost contemporaneous, follow the German and Austrian Schools, and out of all these that composite product the American School. In these Morgagni, Valsalva, Morgan, Louis, Rush, Virchow, to mention a very few only, were the ' apostles ' through whom this ' succession ' of influence passed.

Scientific institutions have been tardy in recognizing the importance of this power of influence, which the artistic world has long considered its corner-stone. In art or science, genius alone is able to flourish on the *Geist* from within.

For my own purposes, in order to renew from time to time the influence which, as pupils and *internes*, we had come to depend upon, I have for some years made extracts from Dr. Osler's Lectures and Addresses *. I would like to share the benefits of these with others. At Oxford, during the summer of 1905, 'Counsels and Ideals' under his guidance took definite form.

Those who know his personal influence, those in and out of our profession to whose 'unmeaning taskwork' in their 'brazen prison' he has shown a way to

'escape . . . and depart
On the wide Ocean of life anew,'

will welcome these pilot sayings to help grasp 'the rudder hard' and to see

How fair a lot to fill
Is left to each man still.'

C. N. B. CAMAC.

New York City, 1905.

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* All of Dr. Osler's writings, including the seventeen collected Addresses entitled *Aequanimitas*, have been consulted. Forty-seven have been extracted for the present volume.

CONTENTS

The selections, made almost exclusively from the less technical Lectures and Addresses, are grouped under the following general headings:—

PAGE
1. EXEMPLARY CHARACTERS IN MEDICINE . . 1
2. HISTORY AND BIOGRAPHY 11
3. PIONEERS IN MEDICINE 51
4. THE HUMANITIES IN MEDICINE 57
5. THE PRACTICAL IN MEDICINE 65
6. CATHOLICITY IN MEDICINE 69
7. HONESTY, TRUTH, ACCURACY, AND THOROUGHNESS IN MEDICINE 77
8. ENCOURAGEMENT AND INFLUENCE IN MEDICINE 89
9. SILENCE AND SELF-CONTROL 93
10. PATIENT DEVOTION TO DUTY AND HIGH IDEALS 99
11. CHARITY AND FRATERNITY IN MEDICINE . . 113
12. MEDICAL EDUCATION 127
13. BOOKS, LIBRARIES, AND MEDICAL SOCIETIES . 157
14. VALUE OF TRAVEL 163
15. THE PRACTITIONER OF MEDICINE . . . 171
16. CUPID AND MARRIAGE 219
17. WORK 223
18. MAN'S YEARS OF USEFULNESS, AND HOW HE MAY PROLONG THEM 239
19. RELIGION, DEATH, AND IMMORTALITY . . . 247
20. VARIA 255

NOTE.—Each extract has a numerical reference to the original. By following these numbers through, all the extracts from one source may be gathered. It is strongly urged however, whenever possible, to get the original and read it throughout.

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EXEMPLARY CHARACTERS IN MEDICINE

BIBLIOMANIACS, CHERISHERS OF BIOGRAPHICAL RECORDS

The men I speak of (bibliomaniacs) keep alive in us an interest in the great men of the past, and not alone in their works, which they cherish, but in their lives, which they emulate. They would remind us continually that in the records of no other profession is there to be found so large a number of men who have combined intellectual pre-eminence with nobility of character.[19]

John Locke (1632–1704): character of;

Among the great men of the seventeenth century not one has more enduring claims to our grateful remembrance than John Locke—philosopher, philanthropist, and physician. As a philosopher his praise is in the colleges. As the apostle of common sense he may be ranked with Socrates and a few others who have brought philosophy from the clouds to the working-day world. Of his special virtues and qualifications as the typical English philosopher nothing need be said, but were there time I would fain dwell upon his character as a philanthropist—in the truest sense of the word. The author of the *Epistle on Toleration*, the *Treatise on Education*, and the *Constitution of Carolina*, the man who pleaded for 'absolute Liberty, just and true Liberty, equal and impartial Liberty,' the man who wrote the memorable words, 'All men are naturally in a state of freedom, also of equality,' must be ranked as one of the greatest benefactors of the race.[1]

◆

his influence.

For each one of us there is still 'a touch divine' in the life and writings of John Locke. A singularly attractive personality, with a sweet reasonableness of temper and a charming freedom from flaws and defects of character, he is an author whom, liking at the first acquaintance, we soon love as a friend. Perhaps the greatest, certainly, as Professor Fowler says, the most characteristic English philosopher, we may claim Dr. Locke as a bright ornament of our profession, not so much for what he did in it, as for the methods which he inculcated, and the influence which he exercised upon the English Hippocrates. He has a higher claim as a really great benefactor of humanity, one of the few who, as was so finely said of Isocrates, 'reflected the human spirit always on the nobler side.' One of Locke's earliest writings was a translation for Lady Shaftesbury of Pierre Nicole's *Essays*, in one of which, on the 'Way of Preserving Peace with Men,' Locke seems to have found a rule of life which I commend to you: 'Live the best life you can, but live it so as not to give needless offence to others; do all you can to avoid the vices, follies, and weaknesses of your neighbours, but take no needless offence at their divergences from your ideal.'[1]

◆

Jonathan Hutchinson.

You have been fortunate in having associated with your college (Medical Graduate College and Polyclinic, England) a man with a truly Hunterian mind. In the broad scope of his work, in the untiring zeal with which he has studied the natural phenomena of disease, in his love for specimens and collections, Mr. Jonathan Hutchinson bears a strong likeness to the immortal Hunter. No individual contributor in this country has made so many careful observations upon so many diseases. He is the only great generalized specialist which the profession has produced, and his works are a storehouse upon which the surgeon, the physician, the neurologist, the dermatologist, and other specialists freely draw. When anything turns up which is anomalous or peculiar, anything upon which the textbooks are silent and the systems and cyclopaedias are dumb, I tell my students to turn to the volumes of Mr. Hutchinson's *Archives of Surgery*, as if it is not mentioned in them, it surely is something very much out of the common. It is very fortunate that his collection will be kept together, as it will be of great service to students from all parts of the world. In one respect it is unique, pictorial and clinical, not anatomical and pathological, and it will remain a worthy monument to the zeal and perseverance of a remarkable man, a man who has secured the homage of a larger number of clinical workers than any Englishman of his generation.[2]

◆

Sydenham (1624–89): scepticism in Medicine.

Sydenham was called 'a man of many doubts,' and therein lay the secret of his great strength.[4]

◆

Linacre (1460–1524).

Linacre, as Dr. Payne remarks, 'was possessed from his youth till his death by the enthusiasm of learning. He was an idealist devoted to objects which the world thought of little use.' Painstaking, accurate, critical, hypercritical perhaps, he remains to-day the chief literary representative of British Medicine. Neither in Britain nor in greater Britain have we maintained the place in the world of letters created for us by Linacre's noble start.[4]

◆

The man and his opportunity.

Come with me for a few minutes on a lovely June day in 1822, to what was then far-off northern wilds, to the island of Michilimackinac, where the waters of Lake Michigan and Lake Huron unite, and where stands Fort Mackinac, rich in the memories of Indian and *voyageur*, one of the four important posts on the upper lakes in the days when the rose and the fleur-de-lys strove for the mastery of the western world. Here the noble Marquette laboured for his Lord, and here beneath the chapel of St. Ignace they laid his bones to rest. Here the intrepid La Salle, the brave Tonty, and the resolute Du Luht had halted in their wild wanderings. Its palisades and block-houses had echoed the war-whoops of Ojibwas and Ottawas, of Hurons and Iroquois, and the old fort had been the scene of bloody massacres and hard-fought fights, but at the conclusion of the War of 1812, after two centuries of struggle, peace settled at last on the island. The fort was occupied by United States troops, who kept the Indians in check and did general police duty on the frontier, and the place had become a rendezvous for Indians and *voyageurs* in the employ of the American Fur Company. On this bright spring morning the village presented an animated scene. The annual return tide to the trading-post was in full course, and the beach was thronged with canoes and batteaux laden with the pelts of the winter's hunt. *Voyageurs* and Indians, men, women, and children, with here and there a few soldiers, made up a motley crowd. Suddenly from the company's store there is a loud report of a gun, and amid the confusion and excitement the rumour spreads of an accident, and there is a hurrying of messengers to the barracks for a doctor. In a few minutes

(Beaumont says twenty-five or thirty, an eye-witness says three) an alert-looking man in the uniform of a U. S. army surgeon made his way through the crowd and was at the side of a young French-Canadian who had been wounded by the discharge of a gun, and with a composure bred of an exceptional experience of such injuries, prepared to make the examination. Though youthful in appearance, Surgeon Beaumont had seen much service, and at the capture of York and at the investment of Plattsburgh had shown a coolness and bravery under fire which had won him high praise from his superior officers. The man and the opportunity had met—the outcome is my story of this evening.[7]

◆

Visit to Virchow (1821–1902):

In 1884, on returning to Berlin for the first time since my student days, I took with me four choice examples of skulls of British Columbian Indians, knowing well how acceptable they would be. In his room at the Pathological Institute, surrounded by crania and skeletons, and directing his celebrated 'Diener,' who was mending Trojan pottery, I found the professor noting the peculiarities of a set of bones which he had just received from Madeira. Not the warm thanks, nor the cheerful, friendly greeting which he always had for an old student, pleased me half as much as the prompt and decisive identification of the skulls which I had brought, and his rapid sketch of the cranial characters of the North American Indian. The profound expert, not the dilettante student, has characterized all of his work in this line.[8]

❦

the citizen.

It will be acknowledged that in this country doctors are, as a rule, bad citizens, taking little or no interest in civic, state, or national politics. Let me detain you a moment or two longer to tell of one of us, at least, who, in the midst of absorbing pursuits, has found time to serve his city and his country. For more than twenty years Virchow has sat in the Berlin City Council as an alderman, and to no feature in his extraordinary life does the Berliner point with more justifiable pride. It is a combination of qualities only too rare, when the learned professor can leave his laboratory and take his share in the practical municipal work. How much his colleagues have appreciated his efforts has been shown by his election as Vice-president of the Board; and on the occasion of the celebration in 1881, the Rathaus was not only placed at the disposal of the committee, but the expenses of the decorations, &c., were met by the council; and to-day comes word by cable that he has been presented with the freedom of the city.[8]

❦

William Pepper (1843–98): a strong soul;

In that noble poem *Rugby Chapel*, in memory of his father, Matthew Arnold draws a strong contrast, on the one hand, between the average man, who eddies about, eats and drinks, chatters and loves and hates, and then dies, having striven blindly and achieved nothing; and, on the other, the strong soul tempered with fire, not like the men of the crowd, but fervent, heroic, and good, the helper and friend of mankind. Dr. William Pepper, whose loss we mourn to-day, while not a Thomas Arnold, belonged to this group of strong souls, our leaders and masters, the men who make progress possible.

a leader;

There are two great types of leaders: one, the great reformer, the dreamer of dreams with aspirations completely in the van of his generation, lives often in wrath and disputations, passes through fiery ordeals, is misunderstood, and too often despised and rejected by his generation. The other, a very different type, is the leader who sees ahead of his generation, but who has the sense to walk and work in it. While not such a potent element in progress, he lives a happier life, and is more likely to see the fulfilment of his plans. Of this latter type the late Professor of Medicine at the University of Pennsylvania was a notable example—the most notable the profession of this country has offered to the world.[9]

◆

a child of fortune;

William Pepper began life under conditions which are very often unfavourable to success. His father, a distinguished physician, the Professor of Medicine in the school in which his son was educated, belonged to a family of position and influence. For the young man there were none of those tempering 'blows of circumstance,' no evil star with which to grapple and grow strong. Quite as much 'grit' and a much harder climb are needed to reach distinction from the top as from the bottom of the social scale, and to rise superior to the *res abundans domi* has taxed to the uttermost many young men in this country. We have heard enough of the self-made men, who are always on top; it is time now to encourage in America the young fellow who is unhappily born ‘with a silver spoon in his mouth.’ Like the young man in the Gospels, he is too apt to turn away sorrowfully from the battle of life, and to fritter away his energies in Europe, or to go to the devil in a very ungentlemanly manner, or to become the victim of neurasthenia. To such the career I am about to sketch should prove a stimulus and an encouragement. [9]

◆

a modern Greek.

In many ways the American is the modern Greek, particularly in that power of thinking and acting, which was the strongest Hellenic characteristic. Born and bred in one of the most conservative of cities, surrounded by men who loved the old order, and who hated change or even the suggestion of it, Pepper displayed from the outset an adaptibility and flexibility truly Grecian. He was preeminently a man of felicities and facilities, to use a somewhat flash but suitable phrase. Matthew Arnold's comment upon the happy and gracious flexibility which was so incarnate in Pericles has often occurred to me in thinking of the character of the late Provost: ‘lucidity of thought, clearness and propriety of language, freedom from prejudice, freedom from stiffness, openness of mind, and amiability of manner.’ There was another Grecian feature which must not be lost sight of. You remember in the *Timaeus* how the Egyptian priest said to Solon: 'You Hellenes are never anything but children; there is not an old man among you . . . in mind you are all young.'

To the very last there was a youthful hopefulness and buoyancy of spirits about Pepper that supported him in many trials and troubles. I never knew him despondent or despairing. The persistency of this buoyant hopefulness often wore out the most obstinate opposition; in fact, it was irresistible. Nor was it the hopefulness which we condemn as visionary, but a resourceful hopefulness, based on confidence in himself, and, most valuable quality of all, capable of inspiring confidence in others.[9]

HISTORY AND BIOGRAPHY

VALUE OF BIOGRAPHICAL STUDY

Of the altruistic instincts veneration is not the most highly developed at the present day; but I hold strongly with the statement that it is the sign of a dry age when the great men of the past are held in light esteem.[10]

◆

THE HISTORICAL METHOD

By the historical method alone can many problems in medicine be approached profitably. For example, the student who dates his knowledge of tuberculosis from Koch may have a very correct, but a very incomplete, appreciation of the subject. Within a quarter of a century our libraries will have certain alcoves devoted to the historical consideration of the great diseases, which will give to the student that mental perspective which is so valuable an equipment in life. The past is a good nurse, as Lowell remarks, particularly for the weanlings of the fold.[19]

Value of historical study.

Editions of the Hippocratic writings appear from time to time, and in the revival of the study of the history of medicine the writings of such masters as Galen and Aretaeus reappear, but the interest is scholastic, and amid the multiplicity of studies how can we ask the student to make himself familiar with the ancients? We can, however, approach the consideration of most subjects from an historical standpoint, and the young doctor who thinks that pathology began with Virchow gets about the same erroneous notion as the student who begins the study of American history with the Declaration of Independence.[3]

◆

'In the present crowded state of the curriculum it does not seem desirable to add the "History of Medicine" as a compulsory subject. An attractive course will catch the good men and do them good, but much more valuable is it to train the mind of the student to look at things from the historical standpoint, and this can be done by individual teachers who themselves appreciate the truth of Fuller's remark, "History maketh a young man to be old without either wrinkles or grey hairs; privileging him with the experience of age without either the infirmities or inconveniences thereof. Yea, it not only maketh things past present, but enableth one to make a rational conjecture of things to come. For this world affordeth no new accidents, but in the same sense wherein we call it *a new moon*, which is the old one in another shape; and yet no other than that hath been formerly. Old actions return again, furbished over with some new and different circumstances."'—(*B. M. J.*, 1902.)

Science, last and chief blessing.

For countless generations the prophets and kings of humanity have desired to see the things which men have seen, and to hear the things which men have heard, in the course of this wonderful nineteenth century. To the call of the watchers on the towers of progress there has been the one sad answer—the people sit in darkness and in the shadow of death. Politically, socially, and morally the race has improved, but for the unit, for the individual, there was little hope. Cold philosophy shed a glimmer of light on his path, religion in its various guises illumined his sad heart, but neither availed to lift the curse of suffering from the sin-begotten son of Adam. In the fullness of time, long expected, long delayed, at last science emptied upon him from the horn of Amalthea blessings which cannot be enumerated, blessings which have made the century for ever memorable; and which have followed each other with a rapidity so bewildering that we know not what next to expect. [5]

❧

The gift of the nineteenth century to mankind.

To us in the medical profession, who deal with this unit (the individual), and measure progress by the law of the greatest happiness to the greatest number, to us whose work is with the sick and suffering, the great boon of this wonderful century, with which no other can be compared, is the fact that the leaves of the tree of science have been for the healing of the nations. Measure as we may the progress of the world—materially, in the advantages of steam, electricity, and other mechanical appliances; sociologically, in the great improvement in the conditions of life; intellectually, in the diffusion of education; morally, in a possibly higher standard of ethics—there is no one measure which can compare with the decrease of physical suffering in man, woman, and child, when stricken by disease or accident. This is the one fact of supreme personal import to every one of us. This is the Promethean gift of the century to man.[5]

◆

The vice of authority.

The fetters of a thousand years in the treatment of fever were shattered by Sydenham, shattered only to be riveted anew. How hard was the battle in this century against the entrenched and stubborn foe! Listen to the eloquent pleadings of Stokes, pleading as did Sydenham, against authority and against the bleedings, the purgings, and sweatings of fifty years ago. 'Though the hair be grey and his authority high, he is but a child in knowledge and his reputation an error. On a level with a child so far as correct appreciation of the great truths of medicine is concerned, he is very different in other respects, his powers of doing mischief are greater; he is far more dangerous. Oh that men would stoop to learn, or at least cease to destroy!'[4]

◆

Weir Mitchell.

Not in vain has he wandered amid green pastures, and by the still waters in the Garden of the Gods, and the Pierian roses which he has gathered have the bloom and much of the fragrance of those which deck the brows of our brother-craftsmen—of Goldsmith, of Keats, and of Holmes. Heredity has done much, environment has done more, in the career of which I speak. Unlike the majority of those who have 'passed the chair' of this honourable Faculty, the path along which Weir Mitchell trod to fame led around, not through, Academic Halls. When University positions are so coveted, and when the ambition of every worker is to teach, it is a satisfaction to be able to point to a man who has risen from the ranks, so to speak, to the highest generalship and command. But may I allude—if only to show the truth of Schiller's dictum,

> 'Des Lebens ungemischte Freude
> Ward keinem Irdischen zum Theil'—

to disappointed academic ambitions on the part of our distinguished fellow, now long past, perhaps even forgotten by him? Truly the stone which the builders rejected has become the chief stone of the corner. For his sake I have always thought that in so doing they 'builded better than they knew.'

Again; in relation to this college (College of Physicians), around which clusters so large a part of all that is best in the history of the profession of this city (Philadelphia), the man whom we delight to honour has fostered its growth, widened its influence, and stimulated its life. For this we thank him best when we place his portrait in line with those of Redman, Shippen, and Wood.

It is too weird a speculation to think that here to-night in this hall amid the volumes of forgotten lore, a ghostly procession of our presidents who have gone will pass verdict on this picture and will greet as worthy one who, *caute*, *caste et probe*, supported the traditions which they held so dear. Amid the racket and hurly-burly few of us have the chance to warm both hands at the fire of life. No member of the profession in his generation, either in America or Europe, has so pleasantly toasted hands and feet before the logs as S. Weir Mitchell; and no one has been more ready to give a brother a place at the glowing hearth. If asked for a scroll to place beneath that frame I would write that he was one

'Whose even balanced soul
Business could not make dull, nor passion wild;
Who saw life steadily and saw it whole.'[37]

◆

Charcot (1825–93):

cosmopolitan;

Now and again there is given to medicine a man whose life and work make an enduring impression, and who, escaping the thralls of nationalism, becomes a cosmopolitan teacher and leader. The latter part of this century has had only three or four such men: Lister in Great Britain, Virchow and Koch in Germany, Pasteur in France—men who have revolutionized medicine by brilliant discoveries and by the introduction of new methods, and who have moulded anew our works and ways, and have widened the horizon of our thoughts. In this select circle by virtue of extraordinary labours, the suffrages of our Guild, the world over, had placed Jean Martin Charcot, whose sudden death on August the 16th last has been so universally deplored.[40]

A feature which helped not a little in Charcot's success was a personality attractive to young men. . . . Charcot's method of teaching was in striking contrast to that of his colleagues at other French hospitals. . . . Half an hour before the lecture the front rows were filled with enthusiastic students, and by the time the lecture began there was standing-room only. Without any attempt at display or effect, interesting cases were brought in, the symptoms analysed, the diagnosis made, the anatomical condition discussed, usually with the aid of black-board and chalks, followed, in conclusion, by a few general comments. It was a clinical lecture in the true sense of the term. Without volubility, Charcot possessed in a marked degree that charming lucidity in the presentation of a subject so characteristic of his countrymen.[40]

attractive personality;

a teacher without attempt at display or effect;

a clinical lecture.

Lucidity without volubility.

◆

A finely tempered individualism, prone though it be to excess, is one of the glories of the French character. The *man* in France stands for more than in any other land; his worth and work are there more truly recognized, and there his relative position in the history of art, literature, or science is more justly gauged. Alone among the nations of the world, France honours duly the mighty dead of our profession. Not in the Pantheon only, but in statues, in the names of streets, and in the names of hospitals one is constantly reminded in Paris that such men as Bichat, Laënnec, Pinel, Trousseau, Broca, Bernard, and others have honourably served their day and generation.[40]

France honours her great men.

William Pepper (1843–98):

The medical profession in every country has produced men of affairs of the first rank, men who have risen high in the councils of nations, but with scarcely any exception the practice of medicine has not been compatible with such duties. So absorbing are the cares of the general practitioner or the successful consultant that he has but little time to mingle in outside affairs, and the few who enter public life do so with many backward glances at the consulting-room, and with well-grounded forebodings of disaster to professional work. But Dr. Pepper maintained to the end the closest relations with the profession, both as a consultant and a teacher. To me one of the most remarkable features of his life is the conscientiousness with which he attended to a large and exacting practice. That amid such multifarious cares and duties he should have been able to maintain an undiminished activity in his calling is perhaps the greatest tribute to his genius. As a teacher his forte was in the amphitheatre, where he displayed precision in diagnosis, great lucidity in the presentation of a complicated case, and a judicious and thorough knowledge of the resources of art.[9]

❦

The tribute of words has already been paid, but to us, of his circle, two aspects of his character may be dwelt upon for a moment. William Pepper was the embodiment of that happy and gracious flexibility which distinguished the best of the old Greeks.

a cultured Hellene;

Matthew Arnold's portrayal of the cultured Hellene can be transferred to him with singular appropriate-ness: 'Lucidity of thought, clearness and propriety of language, freedom from prejudice, freedom from stiffness, openness of mind, and amiability of manner.' The greatest of philosophers has said that a man's nature is best proved, not in the business of life, but in festive intercourse; and at our round table we have all had opportunities of proving how good was the best in the nature of our friend.

For six generations this home of the medical profession in America has never wanted broad-minded representatives whose talents were not restricted within the limits of their art. Such men as Casper Wistar, Rush, Chapman, and Leidy—to mention only typical illustrations—have passed into the history of this city, famous in literature or science, pursuits peculiarly adapted to the retired life of the physician. When the wider field of public service has been sought, it has almost invariably been at the loss of all active interest in medicine. For the first time in this country the medical profession produced in the person of William Pepper a man of affairs of the first rank, whose work as an organizer will compare with the very best, and this at a period of our history when the value of organization had become fully appreciated.

an organizer;

That amid multifarious duties and cares he should have retained to the last an undiminished activity in his calling, is perhaps the greatest tribute to his genius. To his native land and to her sons he gave freely the splendid gifts of his time and energies, but to us, his intimates, he gave of his buoyancy,

undiminished activity to the last.

his hopefulness, and his courage—and they remain to cheer us on the remainder of our way.[36]

◆

The nature-physicians.

We miss now the quickening spirit and the wiser insight that come with work in a wide field; and in the great cities of this country we look in vain among practising physicians for the successor of Jacob Bigelow of Boston, Holmes of Montreal, Barton of Philadelphia, and others—men who maintained in this matter an honourable tradition, whose names live in natural history societies and academies of natural science, in the founding of which they were mainly instrumental.[8]

◆

Richard Morton (1637–98).

August 22, 1662—Black Bartholomew's Day, as it has been called—brought sadness and sorrow to many English homes. The enforcement of the Act of Uniformity called for subscription to the Thirty-nine Articles, and enforced the use by all clergymen of the Book of Common Prayer. Among those ejected for refusal to subscribe—2,000 in number, it is said—was a young man, aged twenty-five, the Vicar of Kinver, in Staffordshire, Richard Morton by name. The son of a physician, born in 1637, he had been educated at Oxford, where he took the B.A. in 1656–7, became chaplain to his college and took the M.A. in 1659, and in the same year was appointed to the vicarage of Kinver. From the days of St. Luke there have been many instances of what has been called the angelical conjunction of physic and divinity. In the seventeenth century many men could sign *Φιλοθεολογιατρονόμος* after their names, as did Robert Lovell in his *History of Animals and Minerals* (1661). Following Linacre's example, clerical orders have been taken as a rule by the physician late in life, but Morton, ejected from his living, turned his attention to medicine at a comparatively early age. From Baxter's account, he evidently was a loss to the church. He speaks of him as 'a man of great gravity, calmness, sound principles, of no faction, an excellent preacher, of an upright life.'[11]

❧

Broussais, (1772–1838).

In one of Bassett's last letters there is an interesting note about Broussais, who had just finished his course in phrenology:—

> 'The pupils of '36 have struck off his head. It is in bronze, a little less than our old Washington and Franklin in wax. Broussais is a genius, and when he entered life he saw that something was to be done, or rather that he must do something, and he seized the science of medicine as a good old doctor would a bottle of lotion, and shook it manfully; France, Germany, all Europe, parts of Asia, and America have felt the agitation. But younger men also feel the necessity of doing something, and they are now endeavouring to quiet the commotion he has raised, and in France they have measurably succeeded. When the giant dies I doubt if he will find a successor—his conquests, like Alexander's, will be divided and then fall into insignificance. He fights well while in the ring against awful odds, for the truth is against him, but some of her brightest geniuses he has put to rout or silence. Time is now about to enter the field, and I have no doubt will place a splendid monument over him, to prevent him from being forgotten.'[12]

Linacre, (1460-1524).

Linacre, the type of the literary physician, must ever hold a unique place in the annals of our profession. To him was due in great measure the revival of Greek thought in the sixteenth century in England; and, in the last Harveian oration, Dr. Payne has pointed out his importance as a forerunner of Harvey. He made Greek methods available; through him the art of Hippocrates and the science of Galen became once more the subject of careful, first-hand study.[4]

◆

American medicine.

What would attract us all is the study of the growth of the American mind in medicine since the starting of the colonies. As in a mirror this story is reflected in the literature of which you are the guardians and collectors—in letters, in manuscripts, in pamphlets, in books, and in journals. In the eight generations which have passed, the men who have striven and struggled—men whose lives are best described in the words of St. Paul, 'in journeyings often, in perils of waters, . . . in perils in the city, in perils in the wilderness, in perils in the sea, . . . in weariness and painfulness, in watchings often, in hunger and thirst, in fastings often'—these men, of some of whom I have spoken, have made us what we are. With the irrevocable past into which they have gone lies our future, since our condition is the resultant of forces which, in these generations, have moulded the profession of a new and mighty empire. From the vantage-ground of a young century we can trace in the literature how three great streams of influence—English, French, and

German—have blended into the broad current of American medicine on which we are afloat. Adaptiveness, lucidity, and thoroughness may be said to be the characteristics of the Anglican, Gallic, and Teutonic influences, and it is no small part of your duty to see that these influences, the combination of which gives to medicine on this continent its distinctively eclectic quality, are maintained and extended. [3]

◆

Fevers, differentiation of.

One of the most complicated problems of the first half of the century related to the differentiation of the fevers. The eruptive fevers, measles, scarlet fever, and small-pox, were easily recognized, and the great group of malarial fevers was well known; but there remained the large class of continued fevers, which had been a source of worry and dispute for many generations. [5]

◆

Louis clearly differentiated typhoid fever, and by the work of his American pupils, W. W. Gerhard and Alfred Stillé of Philadelphia, and George Shattuck of Boston, typhus and typhoid fevers were defined as separate and independent affections. [5]

◆

Relapsing fever, yellow fever, dengue, &c., were also distinguished. The work of Graves and Stokes of Dublin, of Jenner and Budd in England, of Drake, Dickson, and Flint in America, supplemented the labours of the French physicians, and by the year 1860 the profession had reached a sure and safe position on the question of the clinical aspects of fevers. [5]

Eryximachus. Nowhere in literature do we have such a charming picture illustrating the position of a cultivated physician in society as that given in Plato's *Dialogues of Eryximachus*, himself the son of a physician, Acumenus. In that most brilliant age the physician was the companion and friend, and in intellectual intercourse the peer, of its choicest spirits.[23]

◆

Evolution. In no way has biological science so widened the thoughts of men as in its application to social problems. That throughout the ages, in the gradual evolution of life, one unceasing purpose runs; that progress comes through unceasing competition, through unceasing selection and rejection; in a word, that evolution is the one great law controlling all living things, 'the one divine event to which the whole creation moves,' this conception has been the great gift of biology to the nineteenth century.[21]

◆

The past. In the continual remembrance of a glorious past individuals and nations find their noblest inspiration.[21]

◆

Tyranny of Democracy. The ideal has been reached, so far as organization is concerned, when the profession elects its own Parliament, to which is committed the control of all matters relating to the licence. The recognition in some form of this democratic principle has been one great means of elevating the standard of medical education, and in a majority of the States of the Union it has secured a minimum period of four years' study, and a State examination for licence to practise. All this is as it should be. But it is high time that the profession realized the anomaly of eight boards in the Dominion and some scores in the United States. One can condone the iniquity in the latter country more readily than in Canada, in which the boards have existed for a longer period, and where there has been a great uniformity in the medical curriculum. After all these years that a young man, a graduate of Toronto and a registered practitioner in Ontario, cannot practise in the province of Quebec, his own country, without submitting to vexatious penalties of mind and pocket, or that a graduate from Montreal and a registered practitioner of this province cannot go to Manitoba, his own country again, and take up his life's work without additional payments and penalties, is, I maintain, an outrage; it is provincialism run riot. That this pestiferous condition should exist throughout this Dominion and so many States of the Union, illustrates what I have said of the tyranny of democracy, and how great enslavers of liberty its chief proclaimers may be. [23]

* * *

Interprovincial and international registration.

My feeling on the subject of international, intercolonial, and interprovincial registration is this—a man who presents evidence of proper training, who is a registered practitioner in his own country, and who brings credentials of good standing at the time of departure, should be welcomed as a brother, treated as such in any country, and registered upon payment of the usual fee. The ungenerous treatment of English physicians in Switzerland, France, and Italy, and the chaotic state of internecine warfare existing on this continent, indicate how far a miserable Chauvinism can corrupt the great and gracious ways which should characterize a liberal profession.[23]

◆

Back to the Greeks.

Like everything else that is good and durable in this world, modern medicine is a product of the Greek intellect, and had its origin when that wonderful people created positive or rational science, and no small credit is due to the physician who, as Professor Gomperz remarks (in his chapter, 'On the Age of Enlightenment,' *Greek Thinkers*, vol. i), very early brought to bear the spirit of criticism on the arbitrary and superstitious view of the phenomena of life. If science was ever to acquire 'steady and accurate habits instead of losing itself in a maze of phantasies, it must be by quiet methodical research.' 'It is the undying glory of the school of Cos that it introduced this innovation into the domain of its art, and thus exercised the most beneficial influence on the whole intellectual life of mankind. Fiction to the right! reality to the left! was the battle-cry of this school in the war which it was the first to wage against the excesses and defects of the nature philosophy.' (Gomperz.) The critical sense and sceptical attitude of the Hippocratic school laid the foundation of modern medicine on broad lines, and we owe to it: first, the emancipation of medicine from the shackles of priestcraft and of caste; secondly, the conception of medicine as an art based on accurate observation, and, as a science, an integral part of the science of man and of nature; thirdly, the high moral ideals expressed in that 'most memorable of human documents' (Gomperz), the Hippocratic oath; and fourthly, the conception and realization of medicine as a profession of a cultivated gentleman. [23]

⁂

Experiments in the laboratory.

The most distinguishing feature of the scientific medicine of the century (nineteenth) has been the phenomenal results which have followed experimental investigation. While this method of research is not new, since it was introduced by Galen, perfected by Harvey, and carried on by Hunter, it was not until well into the middle of the century that, by the growth of research laboratories, the method exercised a deep influence on progress. The lines of experimental research have sought to determine the functions of the organs in health, the conditions under which perversion of these functions occurs in disease, and the possibility of exercising protective and curative influences on the process of disease. [5]

⁂

Not only has experimental science given us clear and accurate data upon the localization of certain functions of the brain, and of the paths of sensory and of motor impulses, but it has opened an entirely new field in the diagnosis and treatment of the diseases of these organs, in certain directions of a most practical nature, enabling us to resort to measures of relief undreamed of even thirty years ago. [5]

⁂

The study of physiology and pathology within the past half-century has done more to emancipate medicine from routine and thraldom of authority than all the work of all the physicians from the days of Hippocrates to Jenner, and we are as yet upon the threshold.[5]

◆

Experiments: clinical.

As clinical observers we study the experiments which Nature makes upon our fellow creatures. These experiments, however, in striking contrast to those of the laboratory, lack exactness, possessing as they do a variability at once a despair and a delight—the despair of those who look for nothing but fixed laws in an art which is still deep in the sloughs of empiricism; the delight of those who find in it an expression of a universal law transcending, even scorning, the petty accuracy of test-tube and balance, the law that in man, 'the measure of all things,' mutability, variability, mobility, are the very marrow of his being.[26]

◆

Laënnec (1781–1826).

The discovery by Laënnec of the art of auscultation, by which, through changes in the normal sound within the chest, various diseases of the heart and lungs could be recognized, gave an immense impetus to clinical research. The art of percussion, discovered by Auenbrugger in the eighteenth century, and reintroduced by Corvisart, contributed not a little to the same. Laënnec's contributions to the study of disease of the lungs, of the heart, and of the abdominal organs really laid the foundation of modern clinical medicine.[5]

◆

Reform in medicine in America.

The reformation which started at Harvard shortly after 1870 spread over the entire country, and the rapid evolution of the medical school has been one of the most striking phenomena in the history of medicine in the century. University authorities began to appreciate the fact that medicine was a great department of knowledge, to be cultivated as a science and promoted as an art. Wealthy men felt that in no better way could they contribute to the progress of the race than by the establishment of laboratories for the study of disease, and hospitals for the care of the sick poor. The benefactions of Johns Hopkins, of Sims, of Vanderbilt, of Pierpont Morgan, of Strathcona, of Mount-Stephen, of Payne, and of Levi C. Lane and others have placed scientific medicine on a firm basis.[5]

❧

Microscope, the invention of (1671).

With the invention of the microscope we can mark the first positive step towards the goal to-day. A Jesuit priest, Kircher, in 1671, was the first to investigate putrefying meat, milk, and cheese with the crude microscope of his day, and left us indefinite remarks concerning 'very minute living worms' found therein. Four years after Kircher a Dutch linen merchant, Antonius von Leeuwenhoek, by improving the lenses of the microscope, saw in rain-water, putrefying fluids, intestinal contents, and saliva, minute, moving, living particles, which he called 'animalculae.' In medical circles of his day these observations aroused the keenest interest, and the theory that these 'animalculae' might be the cause of all disease was eagerly discussed. Plenciz, of Vienna, after much observation of various fluids, putrefying and otherwise, wrote, in 1762, that it was his firm belief that the phenomena of diseases and the decomposition of animal fluids were wholly caused by minute living things.[5]

◆

Medicine in America at opening of nineteenth century.

It may be interesting to take a glance at the state of medicine in this country at the opening of the century. [At the opening of the nineteenth century] there were only three schools of medicine, the most important of which were the University of Pennsylvania and the Harvard. There were only two general hospitals. The medical education was chiefly in the hands of the practitioners who took students as apprentices for a certain number of years. The well-to-do students and those wishing a better class of education went to Edinburgh or London. There were only two or three medical journals, and very few books had been published in the country, and the profession was dependent entirely upon translations from the French and upon English works. The only medical libraries were in connexion with the Pennsylvania Hospital and the New York Hospital. The leading practitioners in the early years were Rush and Physick in Philadelphia; Hosack and Mitchill in New York; and James Jackson and John Collins Warren in Boston. There were throughout the country, in smaller places, men of great capabilities and energy, such as Nathan Smith, the founder of the Medical Schools of Dartmouth and of Yale, and Daniel Drake in Cincinnati.[5]

John Hunter (1728–93).

The well-known effect on angina pectoris of mental emotion has never been better expressed than by John Hunter, who used to say that 'his life was in the hands of any rascal who chose to annoy and tease him.' And yet some of the victims of angina have not found mental excitement to be the most serious exciting cause. Thus, in Mr. Sumner's case, 'a sudden turn in his easy chair, while quietly reading at night, would start up the most tearing agony, while at other times an exciting speech in the Senate, accompanied with the most forcible and muscular gesticulations, would not create even the suggestion of a pain.' (Taber Johnson.)[28]

◆

Harvey (1578–1658). Sydenham (1624–89).

Harvey and Sydenham, types of the scientific and the practical physician, though contemporaries, were uninfluenced, so far as we know, by each other's work or method. Harvey had little reputation as a practical physician, and Sydenham cared little for theories or experiment. Modern scientific medicine, in which these two great types meet, had its rise in France in the early days of this century. True, there had lived and worked in England the greatest anatomist and medical thinker of modern times; but John Hunter, to whose broad vision disease was but one of the processes of nature to be studied, was as a voice crying in the wilderness to the speculative, theoretical physicians of his day.[30]

◆

Louis (1787–1872):

The chief facts in Louis's life may be thus briefly stated. He was born in 1787 at Aï. He began the study of law, but abandoned it for that of medicine.

He seems not to have been of a very strong constitution, as he did not pass the inspection for military service. He began the study of medicine at Rheims, and completed his course in Paris, where he graduated in 1813, in the twenty-seventh year of his age. While waiting at home, hesitating what he should do, M. le comte de Saint-Priest, who occupied an official position in Russia, happened to stay for a few hours in the town of Aï to see Louis's family, and it was suggested that the young physician should accompany him to Russia. He consented, and in St. Petersburg obtained a diploma to practise. For three years he seems to have had no settled abode, but wandered about with his friend, who was governor of one of the provinces.

practised in Odessa for four years;

He then settled in Odessa, where he remained for four years and practised with great success. In the last year of his stay in Odessa he was very much disturbed by the high rate of mortality in children with diphtheria, and this appears to have determined him to abandon for a time the practice of medicine and to devote himself to study. With this object in view he returned to Paris, and for six months attended the practice at the Children's Hospital. Among the younger physicians in Paris he found an old fellow pupil, Chomel, physician to La Charité, who offered him opportunities for work in his wards. Louis was at this time thirty-four years of age. Here for six years uninterruptedly he set himself to work to study disease in the wards and in the post-mortem room. At first he appears to have occupied the position simply as a voluntary

but returned to the hospitals for six years for clinical study;

assistant and friend of Chomel, but subsequently he became his *chef de clinique*, and during this period he occupied a room in the *entre-sol* of the hospital. He was a voluminous note-taker and collected in this time an enormous number of important facts.[30]

◆

This remarkable feature in Louis's life has scarcely been dwelt upon sufficiently. I know of no other parallel instance in the history of medicine. It is worth while reading the brief extract from Dr. Cowan's introduction to his translation of the work on Phthisis:—

'He entered the hospital of La Charité as a *clinical clerk*, under his friend, Professor Chomel. For nearly seven years, including the flower of his bodily and mental powers (from the age of thirty-three to forty), he consecrated the whole of his time and talents to *rigorous*, *impartial observation.* All private practice was relinquished, and he allowed no considerations of personal emolument to interfere with the resolution he had formed. For some time his extreme minuteness of inquiry and accuracy of description were the subjects of sneering and ridicule, and *Cui bono?* was not infrequently and tauntingly asked. The absence of any immediate result seemed for a time to justify their contempt of a method involving too much labour and personal sacrifice to be generally popular or easily imitated; and M. Louis himself, at moments, almost yielded to the increasing difficulties of the task he had undertaken. No sooner, however, were his facts sufficiently numerous to admit of numerical analysis than all doubt and hesitation were dissipated, and the conviction that the path he was pursuing could alone conduct him to the discovery of truth became the animating

minuteness of inquiry and accuracy of description;

Cui bono?

his method spoken of with contempt;

but later applauded and imitated;

motive for future perseverance. Many of the results at which he arrived soon attracted general attention, and among those who had formerly derided his method while they admired his zeal, he found many to applaud and a few to imitate. From this moment may be dated the presence of that strong impression of the necessity of exact observation by which the school of Paris has been since so distinguished, and which is now gradually pervading the medical institutions of the continent and our own country; it is undoubtedly to the author of the present volume that we ought to ascribe the practical revival of that system, which had for ages been verbally recognized, but never before rigorously exemplified.'[30]

◆

the Numerical Method,

Louis introduced what is known as the Numerical Method, a plan which we use every day, though the phrase is not now very often on our lips. The guiding motto of his life was *Ars medica tota in observationibus*, in carefully observing facts, carefully collating them, carefully analysing them. To get an accurate knowledge of any disease it is necessary to study a large series of cases and to go into all the particulars—the conditions under which it is met, the subjects specially liable, the various symptoms, the pathological changes, the effect of drugs. This method, so simple, so self-evident, we owe largely to Louis, in whose hands it proved an invaluable instrument of research. He remarks in one place that the edifice of medicine reposes entirely upon facts, and that truth cannot be elicited but from those which have been well and completely observed.[30]

by which is obtained facts upon which the edifice of medicine must rest;

Louis's channels of influence;

American medicine felt the influence of Louis through two channels, his books and his pupils. Let us speak first of the former. No French writer of the century has had such a large audience in this country; all of his important works were translated and widely read (Louis). The work on Phthisis, the first important outcome of five years' hard work at La Charité in Chomel's wards, was published in 1825. Much had already been done by physicians of the French school on this subject. Bayle's important *Recherches* had been issued in 1810, and Laënnec had revolutionized the study of phthisis by the publication of his treatise on auscultation. I cannot enter into any detailed analysis of the work, but it is one which I can commend to your notice as still of great value, particularly as a model of careful observation. The work was based upon the study of 123 cases observed in Chomel's clinic. The lesions observed at autopsy are first described under the different organs, with great accuracy and detail, and then summarized, following which is an elaborate description of the symptomatology. I do not know of any single work on pulmonary tuberculosis which can be studied with greater profit to-day by the young physician. The fifty years which have elapsed since its publication, and the changes which have taken place in our ideas of tuberculosis, detract naught from the value of his careful anatomical and clinical presentation of the subject.[30]

❧

his teaching and influence;

Oliver Wendell Holmes said that he had learned three things in Paris: 'Not to take authority when

I can have facts, not to guess when I can know, and not to think a man must take physic because he is sick.' It seems to me that this group of young fellows brought back from Paris, first, an appreciation of the value of method and accuracy in the study of the phenomena of disease; secondly, a profound, and at the time a much-needed, distrust of drugs; and, thirdly, a Gallic refinement and culture which stamped them, one and all, as unusual men. Let me name the list over as given to me by Stillé * himself:—

his American pupils in Paris between 1830 and 1840.

'From Boston: James Jackson, Jr., H. I. Bowditch, O. W. Holmes, George C. Shattuck, Jr., John C. Warren (then past middle age), John Mason Warren, and John D. Fisher. From Philadelphia: George W. Norris, William W. Gerhard, Casper W. Pennock, Thomas Stewardson, Alfred Stillé, Thomas L. Mütter, E. Campbell Stewart, Charles Bell Gibson, John B. Biddle, David H. Tucker, Meredith Clymer, William P. Johnston, W. S. W. Ruschenburger, Edward Peace, William Pepper, Sr. Baltimore: William Power (see biography of Charles Frick, in Gross's *Lives*). Charleston: G. S. Gibbes, Peter C. Gaillard, Pryce Porcher. Virginia: J. L. Cabell, L. S. Joynes, — Selden, and — Randolph. New York: John A. Swett, Abraham Dubois, Alonzo Clark, Charles L. Mitchell, — Punnet, Charles D. Smith, Valentine Mott, Sr., [and] John T. Metcalfe.'

There were many others, of course, some before Louis's day, as Samuel G. Morton, who was Laënnec's most distinguished American pupil, and some of those mentioned, as Meredith Clymer (*ultimus*

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* Died April 20, 1902.

Romanorum) and Metcalfe, just gone (1902), who did not come so directly under Louis's influence, but were pupils of Chomel and Andral.[35]

◆

'And many more whose names on earth are dark'—men of the stamp of Dr. Bassett of Alabama, who felt the strong impulsion to know the best that the world offered, every one of whom has left a deep and enduring impression in his sphere of work.[30]

◆

Thomas Dover (1660–1742):

As Sir Thomas Browne remarks in the *Hydriotaphia*: 'The iniquity of oblivion blindly scattereth her poppy, and deals with the memory of men without distinction to merit of perpetuity.' Thus it happens that Thomas Dover, the doctor, has drifted into our modern life on a powder label (to which way of entering the company of posterity, though sanctified by Mithridates, many would prefer oblivion, even to continuous immortality on a powder so potent and palatable as the *Pulvis Ipecacuanhae compositus*); while Thomas Dover, the buccaneer, third in command, one of the principal owners, and president of the council of the *Duke* and *Duchess*—privateers of the ancient and honourable city of Bristol—discoverer of Alexander Selkirk (the original Robinson Crusoe), in spite of more enduring claims on our gratitude, has been forgotten.[34]

◆

a good fighter and a good hater;

Doubtless the old buccaneer, described as 'a man of rough temper, who could not easily agree with

discoverer of 'Robinson Crusoe';

Dover's Powder.

those about him,' was a striking figure as he passed along the Strand to the Jerusalem Coffee House, where he saw his patients. A good fighter, a good hater, as alas! so many physicians have been, his weaknesses and evil behaviour we may forget, but Captain Thomas Dover, who on the 2nd of February, 1710, found 'Robinson Crusoe,' the world should not forget; and we also of his craft have cause daily to remember with gratitude the student and friend of the great Sydenham, who had the wit, in devising a powder, to remember his master's injunction: *Sine papaveribus, sine opiatis et medicamentis, ex iis confectis, manca et clauda esset medicina.*[34]

◆

Oliver Wendell Holmes (1809–94):

'one-hoss shay';

Very fitting indeed is it that he who had lived to be 'the last leaf upon the tree' should have fallen peacefully in the autumn which he loved so well. Delightful, too, to think that although he had, to use the expression of Benjamin Franklin, intruded himself these many years into the company of posterity, the freshness and pliancy of his mind had not for a moment failed. Like his own wonderful 'one-hoss shay,' the end was a sudden breakdown; and though he would have confessed, no doubt, to 'a general flavor of decay,' there was nothing local, and his friends had been spared that most distressing of all human spectacles, those cold gradations of decay, in which a man takes nearly as long to die as he does to grow up, and lives a sort of death in life, *ita sine vita vivere, ita sine morte mori.*[38]

the American Goldsmith and

the English Goldsmith;

Holmes and Lamb;

He has been sandwiched in my affections these many years between Oliver Goldsmith and Charles Lamb. More than once he has been called, I think, the American Goldsmith. Certainly the great distinction of both men lies in that robust humanity which has a smile for the foibles and a tear for the sorrows of their fellow creatures. The English Oliver, with a better schooling for a poet (had he not learned in suffering what he taught in song?), had a finer fancy and at his best a clearer note. With both writers one is at a loss to know which to love the better, the prose or the poetry. Can we name two other prose-writers of equal merit, who have so successfully courted the 'draggle-tailed Muses,' as Goldsmith calls them? Like Charles Lamb, Holmes gains the affections of his readers at the first sitting, and the genial humour, the refined wit, the pathos, the tender sensitiveness to the lights and shadows of life, give to the Breakfast Table Series much of the charm of the *Essays of Elia.*[38]

◆

A few years later, however, he contributed an article which will long keep his memory green in our ranks.

puerperal fever;

Child-bed fever was unhappily no new disorder when Oliver Wendell Holmes studied, nor had there been wanting men who had proclaimed forcibly its specific character and its highly contagious nature. Indeed, so far back as 1795, Gordon, of Aberdeen, not only called it a specific contagion, but said he could predict with unerring accuracy the very doctors and nurses in whose practice the cases would develop. Rigby, too, had lent the weight of his authority in favour of the contagiousness, but the question was so far from settled that, as you will hear, many of the leading teachers scouted the idea that doctors and nurses could convey the disorder. Semmelweis had not then begun to make his interesting and conclusive observations, for which his memory has recently been greatly honoured.

his great contribution to science;

In 1842, before the Boston Society for Medical Improvement, Dr. Holmes read a paper entitled 'The Contagiousness of Puerperal Fever,' in which he brought forward a long array of facts in support of the view that the disease was contagious, conveyed usually by the doctor or the nurse, and due to a specific infection. At the time there certainly was not an article in which the subject was presented in so logical and so convincing a manner. As Sydney Smith says, it is not the man who first says a thing, but it is he who says it so long, so loudly, and so clearly that he compels men to hear him—it is to him that the credit belongs; and so far as this country is concerned, the credit of insisting upon the great practical truth of the contagiousness of puerperal fever belongs to Dr. Holmes. The essay is characterized in places by intenseness and great strength of feeling. He says he could not for a moment consent to make a *question* of the momentous fact, which should not be considered a subject for trivial discussion, but which should be acted upon with silent promptitude. 'No negative facts, no passing opinions, be they what they may, can form any answer to the series of cases now within the reach of all who choose to explore the records of medical science.' Just before the conclusions the following eloquent sentences are found, portions of which are often quoted :—

an historic paragraph ;

> 'It is as a lesson rather than as a reproach, that I call up the memory of these irreparable errors and wrongs. No tongue can tell the heart-breaking calamities they have caused; they have closed the eyes just opened upon a new world of life and happiness; they have bowed the strength of manhood into the dust; they have cast the helplessness of infancy into the stranger's arms, or bequeathed it with less cruelty the death of its dying parent. There is no tone deep enough for record, and no voice loud enough for warning. The woman about to become a mother, or with her new-born infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden, or stretches her aching limbs. The very outcast of the street has pity upon her sister in degradation when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law brought down upon its victims by a machinery as sure as destiny, is arrested in its fall at a word which reveals her transient claims for mercy. The solemn prayer of the liturgy singles out her sorrows from the multiplied trials of life, to plead for her in the hour of peril. God forbid that any member of the profession to which she trusts her life, doubly precious at that eventful period, should regard it negligently, unadvisedly, or selfishly.'

puerperal fever, not

The results of his studies are summed up in a series of eight conclusions, and the strong ground

a misfortune but a crime;

which he took may be gathered from this sentence in the last one: 'The time has come when the existence of a private pestilence in the sphere of a single physician should be looked upon not as a misfortune but a crime.' Fortunately this essay, which was published in the ephemeral *New England Quarterly Journal of Medicine*, was not destined to remain unnoticed. The statements were too bold and the whole tone too resolute not to arouse the antagonism of those whose teachings had been for years diametrically opposed to the contagiousness of puerperal fever.[38]

❧

essay on Puerperal Fever, and the *Chambered Nautilus.*

Some years ago in an editorial note I commented upon a question which Dr. Holmes had asked in his *Hundred Days in Europe*. Somewhere at dinner he had sat next to a successful gynaecologist who had saved some hundreds of lives by his operations, and he asked, 'Which would give the most satisfaction to a thoroughly humane and unselfish being, of cultivated intelligence and lively sensibilities: to have written all the plays which Shakespeare has left as an inheritance for mankind, or to have snatched from the jaws of death more than a hundred fellow creatures, and restored them to sound and comfortable existence?' I remarked that there was nobody who could answer this question so satisfactorily as the Autocrat, and asked from which he derived the greater satisfaction, the *essay on Puerperal Fever*, which had probably saved many more lives than any individual gynaecologist, or the *Chambered Nautilus*, which had given pleasure to so many thousands. The journal reached Dr. Holmes, and I read you his reply to me, under date of January 21, 1889:—

'I have been rarely more pleased than by your allusion to an old paper of mine. There was a time certainly in which I would have said that the best page of my record was that in which I had fought my battle for the poor poisoned women. I am reminded of that essay from time to time, but it was published in a periodical which died after one year's life, and therefore escaped the wider notice it would have found in the *American Journal of the Medical Sciences*. A lecturer at one of the great London hospitals referred to it the other day, and coupled it with some fine phrases about myself which made me blush, either with modesty or vanity, I forget which.

'I think I will not answer the question you put me. I think oftenest of the *Chambered Nautilus*, which is a favourite poem of mine, though I wrote it myself. The essay only comes up at long intervals. The poem repeats itself in my memory, and is very often spoken of by my correspondents in terms of more than ordinary praise. I had a savage pleasure, I confess, in handling those two professors—learned men both of them, skilful experts, but babies, as it seemed to me, in their capacity of reasoning and arguing. But in writing the poem I was filled with a better feeling—the highest state of mental exaltation and the most crystalline clairvoyance, as it seemed to me, that had ever been granted to me—I mean that lucid vision of one's thought and all forms of expression which will be at once precise and musical, which is the poet's special gift, however large or small in amount or value. There is more selfish pleasure to be had out of the poem—perhaps a nobler satisfaction from the life-saving labour.'[38]

Richard Lea MacDonnell (*ob.* 1891).

Very few men have entered upon the race with greater advantages than did Dr. MacDonnell. To a fine physique and presence, and a charm of manner which is so often continued in this country in the second generation of Irishmen of the Brahmin class—to use an expression of Oliver Wendell Holmes—there were added those mental gifts which alone assure success—industry and perseverance. Very early in his career circumstances in connexion with the accidental death of his father altered his surroundings and threw upon him responsibilities that were faithfully and courageously met, and that gave an unmistakable stamp to a character naturally refined and noble. Success came, cares lightened, and, with domestic, social, and professional relations of the happiest possible kind, the future could not have looked brighter; but—*es hat nicht sollen sein*, and a devoted wife, an aged mother, and a loving sister, with colleagues, students, and friends, mourn his untimely union with

'The inheritors of unfulfilled renown.'[33]

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Palmer Howard (1823–89): an ideal student-teacher;

In my early days I came under the influence of an ideal student-teacher, the late Palmer Howard, of Montreal. If you ask what manner of man he was, I would refer you to Matthew Arnold's noble tribute to his father in his well-known poem, *Rugby Chapel*. When young, Dr. Howard had chosen a path—'path to a clear purposed goal'—and he pursued it with unswerving devotion. With him the study and the teaching of medicine were an absorbing passion, the ardour of which neither the incessant and ever-increasing demands upon his time nor the growing years could quench. When, in the summer of 1871, as a senior student, I first came into intimate contact with him, the problem of tuberculosis was under discussion, stirred up by the epoch-making work of Villemin and the radical views of Niemeyer. Every lung lesion at the Montreal General Hospital had to be shown to him, and I got my first-hand introduction to Laënnec, to Andral, to Graves, and to Stokes, and became familiar with their works. . . . An ideal teacher because a student, ever alert to the new problems, an indomitable energy enabled him, in the midst of an exacting practice, to maintain an ardent enthusiasm, still to keep bright the fires which he had lighted in his youth. Since those days I have seen many teachers, and I have had many colleagues, but I have never known one in whom were more happily combined the stern sense of duty with the mental freshness of youth.[45]

alert to new problems.

◆

James Bovell (1817–80).

To one of my teachers I must pay in passing the tribute of filial affection. There are men here to-day who feel as I do about Dr. James Bovell—that he was of those finer spirits, not uncommon in life, touched to finer issues only in a suitable environment. Would the Paul of evolution have been Thomas Henry Huxley had the Senate elected the young naturalist to a chair in this University (Toronto) in 1851? Only men of a certain metal rise superior to their surroundings, and while Dr.

Bovell had that all-important combination of boundless ambition with energy and industry, he had that fatal fault of diffuseness, in which even genius is strangled. With a quadrilateral mind, which he kept spinning like a teetotum, one side was never kept uppermost for long at a time. Caught in a storm which shook the scientific world with the publication of *The Origin of Species*, instead of sailing before the wind, even were it with bare poles, he put about and sought a harbour of refuge in writing a work on Natural Theology, which you will find on the shelves of second-hand book-shops in a company made respectable at least by the presence of Paley. He was an omnivorous reader and transmuter upon anything in the science of the day, from protoplasm to evolution; but he lacked concentration and that scientific accuracy which only comes with a long training (sometimes, indeed, never comes!), and which is the ballast of the boat. But the bent of his mind was devotional, and early swept into the Tractarian movement, he became an advanced Churchman, a good Anglican Catholic. As he chaffingly remarked one day to his friend, the Rev. Mr. Darling, he was like the waterman in *Pilgrim's Progress*, rowing one way towards Rome, but looking steadfastly in the other direction towards Lambeth. His *Steps to the Altar* and his *Lectures on the Advent* attest the earnestness of his convictions; and later in life, following the example of Linacre, he took orders, and became another illustration of what Cotton Mather calls the angelic conjunction of medicine with divinity.[24]

Joseph Leidy (1823–91):

patient spirit, kindly disposition, sustained zeal;

ataraxia;

Leidy and Darwin;

But what shall I say of Leidy, the man in whom the leaven of science wrought with labour and travail for so many years? The written record survives, scarcely equalled in variety and extent by any naturalist, but how meagre is the picture of the man as known to his friends. The traits which made his life of such value—the patient spirit, the kindly disposition, the sustained zeal—we shall not see again incarnate. The memory of them alone remains. As the echoes of the eulogies upon his life have scarcely died away, I need not recount to this audience his ways and work, but upon one aspect of his character I may dwell for a moment, as illustrating an influence of science which has attracted much attention and aroused discussion. So far as the facts of sense were concerned, there was not a trace of Pyrrhonism in his composition, but in all that relates to the ultra-rational no more consistent disciple of the great sceptic ever lived. There was in him, too, that delightful 'ataraxia,' that imperturbability which is the distinguishing feature of the Pyrrhonist, in the truest sense of the word. A striking parallel exists between Leidy and Darwin in this respect, and it is an interesting fact that the two men of this century who have lived in closest intercourse with nature should have found full satisfaction in their studies and in their domestic affections. In the autobiographical section of the *Life of Charles Darwin*, edited by his son Francis, in which are laid bare with such charming frankness the inner thoughts of the great naturalist, we find that he too had reached in suprasensuous affairs

'stretching the pia mater.'

that state of mental imperturbability in which, to borrow the quaint expression of Sir Thomas Browne, *they stretched not his pia mater.* But while acknowledging that in science scepticism is advisable, Darwin says that he was not himself very sceptical. Of these two men, alike in this point, and with minds distinctly of the Aristotelian type, Darwin yet retained amid an overwhelming accumulation of facts—and here was his great superiority—an extraordinary power of generalizing principles from them. Deficient as was this quality in Leidy, he did not, on the other hand, experience 'the curious and lamentable loss of the higher aesthetic taste' which Darwin mourned, and which may have been due in part to protracted ill-health, and to an absolute necessity of devoting all his powers to collecting facts in support of his great theory.

When I think of Leidy's simple life, of his devotion to the study of Nature, of the closeness of his communion with her for so many years, there recur to my mind time and again the lines:—

'He is made one with Nature; there is heard
His voice in all her music, from the moan
Of thunder, to the song of night's sweet bird;
He is a presence to be felt and known
In darkness and in light, from herb and stone,
Spreading itself where'er that Power may move
Which has withdrawn his being to its own.'[21]

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The early American peripatetic teacher.

For many years there was in this country a group of peripatetic teachers, who, like the Sophists of

Greece, went from town to town, staying a year or two in each, or they divided their time between a winter session in a large city school and a summer term in a small country one. Among them Daniel Drake takes the precedence, as he made eleven moves in the course of his stirring and eventful life. Bartlett comes an easy second, having taught in nine schools. Dunglison, T. R. Beck, Willard Parker, Alonzo Clark, the elder Gross, Austin Flint, Frank H. Hamilton, and many others whom I could name, belonged to this group of wandering professors. The medical education of the day was almost exclusively theoretical; the teachers lectured for a short four months' session, there was a little dissection, a few major operations were witnessed, the fees were paid, examinations were held, and all was over. No wonder, under such conditions, that many of the most flourishing schools were found amid sylvan groves in small country towns. In New England there were five such schools, and in the State of New York the well-known schools of Fairfield and Geneva. As there was not enough practice in the small places to go round, the teachers for the most part stayed only for the session, at the end of which it was not unusual for the major part of the faculty, with the students, to migrate to another institution, where the lectures were repeated and the class graduated.[42]

❦

The new student.

Compare the picture of the 'sawbones' of 1842, as given in the recent biography of Sir Henry Acland, with the representatives to-day, and it is evident a great revolution has been effected, and very largely by the salutary influences of improved methods of education. It is possible now to fill out a day with practical work, varied enough to prevent monotony, and so arranged that the knowledge is picked out by the student himself, and not thrust into him willy-nilly, at the point of the tongue. He exercises his wits, and is no longer a passive Strasbourg goose, tied up and stuffed to repletion.[24]

PIONEERS IN MEDICINE

OUR DUTY TO BETTER OUR TIMES

In the dedication of his *Holy War* Thomas Fuller has some very happy and characteristic remarks on the bounden duty of a man to better his heritage of birth or fortune, and what the father found glass and made crystal, he urges the son to find crystal and make pearl.[16]

Volte-face often necessary.

Even in well-known affections, advances are made from time to time that render necessary a revision of our accumulated knowledge, a readjustment of old positions, a removal even of old landmarks. Perhaps the most remarkable illustration of this is offered by the discovery of a tubercle bacillus. What a *volte-face* for those of us who were teachers before 1881! Happy those who had ability and wit sufficient for the summersault! Scarcely less important has been the revolution in our knowledge of malaria since the researches of Laveran, in 1881, on the parasite of the disease.[17]

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The pioneer spirit.

By temperament or conviction there are a few men in every community who cannot bow to the Baals of the society about them, and who stand aloof, in thought at least, from the common herd. Such men in small circles tread a steep and thorny road, and of such in all ages has the race delighted to make its martyrs. The letters indicate in Dr. Bassett a restless, non-conforming spirit, which turned aside from the hollowness and deceit of the life about him. As a student he had doubtless felt a glow of enthusiasm at the rapid development of the science of medicine, and amid the worries and vexations of a country practice his heart burned with the hope of some time visiting the centres of learning. As the years passed, the impulse grew more and more urgent to go forth and see the great minds which had controlled his hours of study. All students flocked to Paris in the fourth decade. Nowhere else was the pool so deeply stirred, and Laënnec, Broussais, Louis, Andral, Velpeau, and others dominated the thoughts of the profession.[12]

⁂

William Beaumont (1785-1853).

You do well, citizens of St. Louis and members of our profession, to cherish the memory of William Beaumont. Alive you honoured and rewarded him, and there is no reproach against you of merits neglected and talents unrecognized. The profession of the northern part of the State of Michigan has honoured itself in erecting a monument to his memory, near the scene of his disinterested labours in the cause of humanity and science. His name is linked with one of your educational institutions, and joined with that of a distinguished labourer in another field of practice. But he has a far higher honour than any you can give him here—the honour that can only come when the man and the opportunity meet, and match. Beaumont is the pioneer physiologist of this country, the first to make an important and enduring contribution to this science. His work remains a model of patient, persevering investigation, experiment and research, and the highest praise we can give him is to say that he lived up to and fulfilled the ideals with which he set out and which he expressed when he said: 'Truth, like beauty, when "unadorned, is adorned the most," and, in prosecuting these experiments and inquiries, I believe I have been guided by its light.'[7]

⁂

The nineteenth century.

The century now drawing to a close has seen the realization of much that the wise of old longed for, much of which the earnest spirits of the past had dreamt. It has been a century of real progress—a time of the loosening of bands and bonds; and medicine too, after an enslavement, ecclesiastical and philosophical, received its emancipation. Forsaking the traditions of the elders, and scouting the Shibboleth of schools and sects, she has at last put off the garments of her pride, and with the reed of humility in her hand sits at the feet of her mistress, the new science. Not to any one man can this revolution be ascribed: the *Zeitgeist* was potent, and like a leaven worked even in unwilling minds; but no physician of our time has done more to promote the change, or by his individual efforts to win his generation to accept it, than Rudolf Virchow.[8]

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Virchow (1821–1902): the sanitarian.

Virchow's life-work has been the study of the processes of disease, and in the profession we revere him as the greatest master that has appeared since John Hunter. There is another aspect of his work which has been memorable for good to his native city. From the day when, as a young man of twenty-seven, he was sent by the Prussian Government to Upper Silesia to study the typhus epidemic, then raging among the half-starved population, he has been one of the most powerful advocates in Germany for sanitary reform; and it is not too much to say that it is largely to his efforts that the city of Berlin owes its magnificent system of drainage. His work in this department has been simply monumental, and characterized by the thoroughness which marks the specialist.[8]

Bichat's *Anatomie générale* laid the foundation of the positive or modern method of the study of medicine, in which theory and reasoning were replaced by observation and analysis. Laënnec, with the stethoscope, and with an accurate study of disease at the bedside and in the post-mortem room, almost created clinical medicine as we know it to-day.[30]

Bichat (1771-1802).

THE HUMANITIES IN MEDICINE

QUALITIES OF HEART AND HEAD

A physician may possess the science of Harvey and the art of Sydenham, and yet there may be lacking in him those finer qualities of heart and head which count for so much in life.[4]

Breeding and pasture.

Pasture is not everything, and that indefinable, though well understood, something which we know as breeding is not always an accompaniment of great professional skill. Medicine is seen at its best in men whose faculties have had the highest and most harmonious training.[4]

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The Lathams, the Watsons, the Pagets, the Jenners, and the Gardiners have influenced the profession less by their special work than by exemplifying those graces of life and refinements of heart which make up a character.[4]

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But by the neglect of the studies of the humanities, which has been far too general, the profession loses a very precious quality.[4]

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And the men of this stamp in Greater Britain have left the most enduring mark—Beaumont, Bovell, and Hodder in Toronto; Holmes, Campbell, and Howard in Montreal; the Warrens, the Jacksons, the Bigelows, the Bowditches, and the Shattucks in Boston; Bard, Hossack, Francis, Clark, and Flint of New York; Morgan, Shippen, Redman, Rush, Coxe, the elder Wood, the elder Pepper, and the elder Mitchell of Philadelphia—Brahmins all, in the language of the greatest Brahmin among them, Oliver Wendell Holmes: these and men like unto them have been the leaven which has raised our profession above the dead level of a business.[4]

◆

Biology and the humanities.

Biology touches the problem of life at every point, and may claim, as no other science, completeness of view and a comprehensiveness which pertains to it alone. To all whose daily work lies in her manifestations the value of a deep insight into her relations cannot be overestimated. The study of biology trains the mind in accurate methods of observation and correct methods of reasoning, and gives to a man clearer points of view, and an attitude of mind more serviceable in the working-day world than that given by other sciences, or even by the humanities. [21]

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Incorruptible treasures of the heart.

After ten years of hard work I left this city (Montreal) a rich man, not in this world's goods, for such I have the misfortune—or the good fortune—lightly to esteem, but rich in the goods which neither rust nor moth has been able to corrupt—in treasures of friendship and good fellowship, and in those treasures of widened experience and a fuller knowledge of men and manners which contact with the bright minds in the profession ensures. [13]

❧

Culture.

But there is a still greater sacrifice which many of us make, heedlessly and thoughtlessly forgetting that 'Man does not live by bread alone.' One cannot practise medicine alone and practise it early and late, as so many of us have to do, and hope to escape the malign influences of a routine life. The incessant concentration of thought upon one subject, however interesting, tethers a man's mind in a narrow field. The practitioner needs culture as well as learning. The earliest picture we have in literature of a scientific physician, in our sense of the term, is of a cultured Greek gentleman; and I care not whether the young man labours among the beautiful homes on Sherbrooke Street, or in slums of Caughnawauga, or in some sparsely settled country district, he cannot afford to have learning only. In no profession does culture count for so much as in medicine, and no man needs it more than the general practitioner, working among all sorts and conditions of men, many of whom are influenced quite as much by his general ability, which they can appreciate, as by his learning of which they have no measure. The day has passed for the 'practiser of physic' to be like Mr. Robert Levet, Dr. Johnson's friend, 'obscurely wise and coarsely kind.' The wider and freer a man's general education the better practitioner is he likely to be, particularly among the higher classes, to whom the reassurance and sympathy of a cultivated gentleman of the type of Eryximachus may mean much more than pills and potions. But what of the men of the type of Mr. Robert Levet, or 'Ole Docteur Fiset,' whose virtues walk a narrow round, the men who do the hard general practices in the poorer districts of the large cities, in the factory towns and in the widely scattered agricultural regions—what, I hear you say, has culture to do with them? Everything! It is the *bichloride* which may prevent the infection and keep a man sweet and whole amid the most debasing surroundings. Of very little direct value to him in his practice—though the poor have a pretty keen appreciation of a gentleman—it may serve to prevent the degeneration so apt to overtake the over-worked practitioner, whose nature is only too prone to be subdued like the dyer's hand to what it works in. If a man does not sell his soul; if he does not part with his birthright of independence for a mess of pottage to the Ishmaelites who harass our borders with their clubs, and oppress us with their exactions; if he can only keep free, the conditions of practice are nowhere incompatible with St. Paul's noble Christian or Aristotle's true gentleman.[23] (Sir Thomas Browne.)

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The leaven of life.

Professional work of any sort tends to narrow the mind, to limit the point of view, and to put a hall-mark on a man of a most unmistakable kind. On the one hand are the intense, ardent natures, absorbed in their studies and quickly losing interest in everything but their profession, while other faculties and interests 'fust' unused. On the other hand are the bovine brethren, who think of nothing but the treadmill and the corn. From very different causes, the one from concentration, the other from apathy, both are apt to neglect those outside studies that widen the sympathies and help a man to get the best there is out of life. Like art, medicine is an exacting mistress, and in the pursuit of one of the scientific branches, sometimes too in practice, not a portion of a man's spirit may be left free for other distractions, but this does not often happen. On account of the intimate personal nature of his work, the medical man, perhaps more than any other man, needs that higher education of which Plato speaks,—'that education in virtue from youth upwards, which enables a man to pursue the ideal perfection.' It is not for all, nor can all attain it, but there is comfort and help in the pursuit, even though the end is never reached. For a large majority the daily round and the common task furnish more than enough to satisfy their heart's desire, and there seems no room left for anything else. Like the good easy man whom Milton scores in the *Areopagitica*, whose religion was a 'traffic so entangled that of all mysteries he could not skill to keep a stock going upon that trade,' and handed it over with all the locks and keys to 'a divine of note and estimation,' so it is with many of us in the matter of this higher education. No longer intrinsic, wrought in us and engrained, it has become, in Milton's phrase, a 'dividual movable,' handed over nowadays to the daily press or to the haphazard instruction of the pulpit, the platform, or the magazines. Like a good many other things, it comes in a better and more enduring form if not too consciously sought. The all-important thing is to get a good relish for the good company of the race in a daily intercourse with some of the great minds. Now, in the spring-time of life, pick your intimates among them, and begin a systematic cultivation of their works. Many of you will need a strong leaven to raise you above the dough in which it will be your lot to labour. Uncongenial surroundings, an ever-present dissonance between the aspirations within and the actualities without, the oppressive discords of human society, the bitter tragedies of life, the *lacrymae rerum*, beside the hidden springs of which we sit in sad despair—all these tend to foster in some natures a cynicism quite foreign to our vocation, and to which this inner education offers the best antidote. Personal contact with men of high purpose and character will help a man to make a start—to have the desire, at least; but in its fullness this culture—for that word best expresses it—has to be wrought out by each one for himself. Start at once a bedside library and spend the last half-hour of the day in communion with the saints of humanity. There are great lessons to be learned from Job and from David, from Isaiah and St. Paul. Taught by Shakespeare you may take your intellectual and moral measure with singular precision. Learn to love Epictetus and Marcus Aurelius. Should you be so fortunate as to be born a Platonist, Jowett will introduce you to the great master through whom alone we can think in certain levels, and whose perpetual modernness startles and delights. Montaigne will teach you moderation in all things, and to be 'sealed of his tribe' is a special privilege. We have in the profession only a few great literary heroes of the first rank, the friendship and counsel of two of whom you cannot too earnestly seek. Sir Thomas Browne's *Religio Medici* should be your pocket companion, while from the Breakfast Table Series of Oliver Wendell Holmes you can glean a philosophy of life peculiarly suited to the needs of a physician.

There are at least a dozen or more works which would be helpful in getting wisdom in life which comes only to those who earnestly seek it.[24]

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The physician: qualities of.

The physician needs a clear head and a kind heart; his work is arduous and complex, requiring the exercise of the very highest faculties of the mind, while constantly appealing to the emotions and finer feelings.[25]

THE PRACTICAL IN MEDICINE

THE PRACTICAL ANGLO-SAXON

Thucydides it was who said of the Greeks that they possessed 'the power of thinking before they acted, and of acting, too.' The same is true in a high degree of the English race. To know just what has to be done, then to do it, comprises the whole philosophy of practical life. 4

The practical Anglo-Saxon.

Bichat, Laënnec, and Louis laid the foundation of modern clinical medicine; Virchow and his pupils of scientific pathology; while Pasteur and Koch have revolutionized the study of the causes of disease; and yet, the modern history of the art of medicine could almost be written in its fullness from the records of the Anglo-Saxon race. We can claim every practical advance of the very first rank—vaccination, anaesthesia, preventive medicine, and antiseptic surgery, the 'captain jewels in the carcanet' of the profession, beside which can be placed no others of equal lustre.[4]

* * *

Wisdom.

And finally every medical student should remember that his end is not to be made a chemist or physiologist or anatomist, but to learn how to recognize and treat disease, how to become a practical physician. Twenty years ago, during the summer session, I held my first class in clinical medicine at the Montreal General Hospital, and on the title-page of a notebook I had printed for the students I placed the following sentence, which you will find the alpha and omega of practical medicine, not that it by any means covers the whole field of his education:—

> 'The knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it, converts itself into practical power. The rest hangs like dust about the brain or dries like rain-drops off the stones.' (Froude.)[13]

* * *

The high mission of the physician.

'Tis no idle challenge which we physicians throw out to the world when we claim that our mission is of the highest and of the noblest kind, not alone in curing disease but in educating the people in the laws of health, and in preventing the spread of plagues and pestilences, nor can it be gainsaid that of late years our record as a body has been more encouraging in its practical results than those of the other learned professions.[25]

❧

Pain.

But take the other view of it—think of the Nemesis which has overtaken pain during the past fifty years! Anaesthetics and antiseptic surgery have almost manacled the demon, and since their introduction the aggregate of pain which has been prevented far outweighs in civilized communities that which has been suffered. Even the curse of travail has been lifted from the soul of women.[25]

❧

The new school.

The processes of disease are so complex that it is excessively difficult to search out the laws which control them, and, although we have seen a complete revolution in our ideas, what has been accomplished by the new school of medicine is only an earnest of what the future has in store.[25]

❧

Cui bono?

The student must be allowed full freedom in his work, undisturbed by the utilitarian spirit of the Philistine, who cries, *Cui bono?* and distrusts pure science. The present remarkable position in applied science and in industrial trades of all sorts has been made possible by men who did pioneer work in chemistry, in physics, in biology, and in physiology, without a thought in their researches of any practical application. The members of this higher group of productive students are rarely understood by the common spirits, who appreciate as little their unselfish devotion as their unworldly neglect of the practical side of the problems.[45]

CATHOLICITY IN MEDICINE

THE CURSED SPIRIT OF INTOLERANCE

Breathes here a man with soul so dead that it does not glow at the thought of what the men of his blood have done and suffered to make his country what it is? There is room, plenty of room, for proper pride of land and birth. What I inveigh against is a cursed spirit of intolerance, conceived in distrust and bred in ignorance, that makes the mental attitude perennially antagonistic, even bitterly antagonistic, to everything foreign, that subordinates everywhere the race to the nation, forgetting the higher claims of human brotherhood.[23]

Chauvinism. At any rate, whether he goes abroad or not, let him early escape from the besetting sin of the young physician, chauvinism, that intolerant attitude of mind which brooks no regard for anything outside his own circle and his own school.[6]

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Need of the *Wanderjahre.* Post-graduate study is needed in all classes among us. The school for the young practitioner is a general practice in which the number and variety of cases will enable him at once to put his methods into daily use. A serious defect may warp his course from the outset. Our students study too much under one set of teachers. In English and American schools they do not move about enough. At a tender age, four or five years give a man a local attachment to place and teachers which is very natural, very nice, but not always the best thing for him. He goes out with a strong bias already in his mind, and is ready to cry, 'I am of Guy's,' 'I am of Bart.'s,' or 'I am an Edinburgh man.' To escape from these local trammels, which may badly handicap a man by giving him an arrogant sense of superiority often most manifest when there is least warrant, is very difficult. I knew three brothers, Edinburgh men, good fellows at heart and good practitioners, but for them the science and art of medicine never extended beyond what their old teachers had taught. A Guy's man they could just endure, for the sake, as one of them said, of Bright, and Cooper, and Addison, but for men of other schools they entertained a supreme and really ludicrous contempt.[2]

The curse of nationalism.

Can we say, as English, French, German, or American physicians, that our culture is always cosmopolitan, not national, that our attitude of mind is always as frankly open and friendly to the French as to the English, to the American as to the German, and that we are free at all times and in all places from prejudice, at all times free from a self-satisfied feeling of superiority, the one over the other? There has been of late years a closer union of the profession of the different countries through the International Congress and through the international meetings of the special societies; but this is not enough, and the hostile attitude has by no means disappeared. Ignorance is at the root. When a man talks slightingly of the position and work of his profession in any country, or when a teacher tells you that he fails to find inspiration in the work of his foreign colleagues, in the words of the Arabian proverb—he is a fool, shun him. Full knowledge which alone disperses the mists of ignorance, can only be obtained by travel or by a thorough acquaintance with the literature of the different countries. Personal, first-hand intercourse with men of different lands, when the mind is young and plastic, is the best vaccination against disease. The man who has sat at the feet of Virchow, or has listened to Traube, or Helmholtz, or Cohnheim, can never look with unfriendly eyes at German medicine or German methods. Who ever met with an English or American pupil of Louis or of Charcot, who did not love French medicine, if not for its own sake, at least for the reverence he bore his great master? Let our young men, particularly those who aspire to teaching positions, go abroad. They can find at home laboratories and hospitals as well equipped as any in the world, but they may find abroad more than they knew they sought—widened sympathies, heightened ideals, and something perhaps of a *Weltcultur* which will remain through life as the best protection against the vice of nationalism.[23]

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If the life and work of such men as Bichat and Laënnec will not stir the blood of a young man and make him feel proud of France and of Frenchmen, he must be a dull and muddly-mettled rascal. In reading the life of Hunter, of Jenner, who thinks of the nationality which is merged and lost in our interest in the man and in his work? In the halcyon days of the Renaissance there was no nationalism in medicine, but a fine catholic spirit made great leaders like Vesalius, Eustachius, Stensen, and others at home in every country in Europe. While this is impossible to-day, a great teacher of any country may have a world-wide audience in our journal literature, which has done so much to make medicine cosmopolitan.[23]

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Democracy in medicine.

Shun as most pernicious that frame of mind, too often, I fear, seen in physicians, which assumes an air of superiority and limits as worthy of your communion only those with satisfactory collegiate or sartorial credentials.[26]

The passports to your fellowship should be honesty of purpose and a devotion to the highest interest of your profession, and these you will find widely diffused, sometimes apparent only when you get beneath the crust of a rough exterior.[24]

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The cosmopolitan character of the physician.

By his commission the physician is sent to the sick, and knowing in his calling neither Jew nor Gentile, bond or free, perhaps he alone rises superior to those differences which separate and make us dwell apart, too often oblivious to the common hopes and frailties which should bind us together as a race. In his professional relations, though divided by national lines, there remains the feeling that he belongs to a guild which owes no local allegiance, which has neither king nor country, but whose work is in the world. The Aesculapian temple has given place to the hospital, and the priestly character of the physician has vanished with the ages; still, there is left with us a strong feeling of brotherhood, a sense of unity, which the limitations of language, race, and country have not been able to efface. So it has seemed meet and right to gather here this evening to do honour to a man—not of this country, nor of our blood—whose life has been spent in the highest interests of humanity, whose special work has revolutionized the science of medicine, whose genius has shed lustre upon our craft.[8]

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The 'lock and key' laboratory.

Another unpleasant manifestation of collegiate chauvinism is the outcome, perhaps, of the very keen competition which at present exists in scientific circles. Instead of a generous appreciation of the work done in other places, there is a settled hostility and a narrowness of judgement but little in keeping with the true spirit of science. Worse still is the 'lock and key' laboratory in which suspicion and distrust reign, and every one is jealous and fearful lest the other should know of or find out about his work. Thank God! this base and bastard spirit is not much seen; but it is about, and I would earnestly advise any young man who unwittingly finds himself in a laboratory pervaded with this atmosphere, to get out ere the contagion sinks into his soul.[23]

◆

Science and practice.

It is well to acknowledge the debt which we every-day practitioners owe to the great leaders and workers in the scientific branches of our art. We dwell too much in corners, and, consumed with the petty cares of a bread-and-butter struggle, forget that outside our routine lie Elysian fields into which we may never have wandered, the tillage of which is not done by our hands, but the fruits of which we of the profession (and you of the public) fully and freely enjoy. The lesson which should sink deepest into our hearts is the answer which a life such as Virchow's gives to those who to-day, as in past generations, see only pills and potions in the profession of medicine, and who, utilizing the gains of science, fail to appreciate the dignity and the worth of the methods by which they are attained. As Pausanias pestered Empedocles, even to the end, for the details of the cure of Pantheia, so there are with us still those who, 'asking not wisdom, but drugs to charm with,' are impatient at the slow progress of science, forgetting that the chaos from which order is now appearing has been in great part dispelled by the work of one still living—by the man whom to-night we delight to honour.[8]

HONESTY, TRUTH, ACCURACY, AND THOROUGHNESS IN MEDICINE

THE ARTISTIC SENSE OF PERFECTION

The artistic sense of perfection in work is another much-to-be-desired quality to be cultivated. No matter how trifling the matter on hand, do it with a feeling that it demands the best that is in you, and when done look it over with a critical eye, not sparing a strict judgement of yourself. This it is that makes anatomy a student's touchstone. Take the man who does his 'part' to perfection, who has got out all there is in it, who labours over the tags of connective tissue, and who demonstrated Meckel's ganglion in his part—this is the fellow in after years who is apt in emergencies, who saves a leg badly smashed in a railway accident, or fights out to the finish, never knowning when he is beaten, in a case of typhoid fever.[24]

Nature and disease.

If we have now so far outgrown this idea as to hesitate to suggest, in seasons of epidemic peril, that 'it is for our sins we suffer'—when we know the drainage is bad; if we no longer mock the heart prostrate in the grief of loss with the words 'whom the Lord loveth He chasteneth'—when we know the milk should have been sterilized—if, I say, we have, in a measure, become emancipated from such teachings, we have not yet risen to a true conception of nature.[14]

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***Credo* of a physician.**

Rarely has the *credo* of a zealous physician been more beautifully expressed than in the following words of Dr. Bassett:—

> 'I do not say that the study of nature, human and comparative, as far as it relates to medicine, is an easy task; let any one undertake a foreign language, and when he thinks he has mastered it, let him go into its native country and attempt to use it among the polite and well informed; if he succeed, let him go among the illiterate and rude, where slang is current; into the lunatic asylum, where the vernacular is babbled in broken sentences through the mouth of an idiot, and attempt to understand this; should he again succeed he may safely say that he knows the language. Let him then set down and calculate the cost, in labour, time, and talent; then square this amount and go boldly into the study of physiology; and when he has exhausted his programme, he will find himself humbly knocking at the door of the temple, and it will be opened; for diligence, like the vinegar of Hannibal, will make a way through frozen Alps; it is the "Open Sesame" of our profession. When he is satisfied with the beautiful portions of the

interior, its vast and varied dimensions, the intricate and astounding action of its machinery, obeying laws of a singular stability, whose very conflict produces harmony under the government of secondary laws, if there be anything secondary in nature!—when he is satisfied (and such are not satisfied until informed), he will be led to his ultimate object, to take his last lessons from the poor and suffering, the fevered and phrenzied, from the Jobs and Lazaruses,—into the pest-houses and prisons, and here, in the magazines of misery and contagion, these Babels of disease and sin, he must not only take up his abode, but following the example of his Divine Master, he must love to dwell there;—this is Pathology. When such an one re-enters the world he is a physician; his vast labours have not only taught him how little he knows, but that he knows his little well. Conscious of this virtue, he feels no necessity of trumpeting his professional acquirements abroad, but with becoming modesty and true dignity, which constitutes genuine professional pride, he leaves this to the good sense of his fellow citizens to discover.'[12]

◆

Fragments of truth.

You remember, in the Egyptian story, how Typhon with his conspirators dealt with good Osiris; how they took the virgin Truth, hewed her lovely body into a thousand pieces, and scattered them to the four winds; and, as Milton says, 'from that time ever since, the sad friends of truth, such as durst appear, imitating the careful search that Isis made for the mangled body of Osiris, went up and down gathering up limb by limb still as they could find them. We have not yet found them all,' but each of us may pick up a fragment, perhaps two, and in moments when mortality weighs less heavily upon the spirit, we can, as in a vision, see the form divine, just as a great naturalist, an Owen or a Leidy, can reconstruct an ideal creature from a fossil fragment.[20]

◆

The discipline of science.

To the physician particularly a scientific discipline is an incalculable gift, which leavens his whole life, giving exactness to habits of thought and tempering the mind with that judicious faculty of distrust which can alone, amid the uncertainties of practice, make him wise unto salvation. For perdition inevitable awaits the mind of the practitioner who has never had the full inoculation with the leaven, who has never grasped clearly the relations of science to his art, and who knows nothing and perhaps cares less for the limitations of either.[21]

◆

Humbug.

It cannot be denied that in dealings with the public just a little touch of humbug is immensely effective, but it is not necessary.

In a large city there were three eminent consultants of world-wide reputation ; one was said to be a good physician but no humbug, the second was no physician but a great humbug, the third was a great physician and a great humbug. The first achieved the greatest success, professional and social, possibly not financial.[6]

◆

Truth hard to reach.

Start out with the conviction that absolute truth is hard to reach in matters relating to our fellow creatures, healthy or diseased, that slips in observation are inevitable even with the best trained faculties, that errors in judgement must occur in the practice of an art which consists largely in balancing probabilities;—start, I say, with this attitude of mind, and mistakes will be acknowledged and regretted; but instead of a slow process of self-deception, with ever-increasing inability to recognize truth, you will draw from your errors the very lessons which may enable you to avoid their repetition.[22]

◆

Humility.

And, for the sake of what it brings, the grace of humility is a precious gift. When to the sessions of sweet silent thought you summon up the remembrance of your own imperfections, the faults of your brothers will seem less grievous, and, in the quaint language of Sir Thomas Browne, you will 'allow one eye for what is laudable in them.'[22]

◆

The wrangling and unseemly disputes which have too often disgraced our profession arise, in a great majority of cases, on the one hand, from this morbid sensitiveness to the confession of error, and, on the other, from a lack of brotherly consideration, and a convenient forgetfulness of our own failings.[22]

◆

The sciences essential.

A man cannot become a competent surgeon without a full knowledge of human anatomy and physiology, and the physician without physiology and chemistry flounders along in an aimless fashion, never able to gain any accurate conception of disease, practising a sort of popgun pharmacy, hitting now the malady and again the patient, he himself not knowing which.[25]

◆

Humility.

The art of detachment, the virtue of method, and the quality of thoroughness may make you students, in the true sense of the word, successful practitioners, or even great investigators, but your characters may still lack that which can alone give permanence to powers—the grace of humility.[22]

◆

As the divine Italian, at the very entrance to Purgatory, was led by his gentle master to the banks of the island and girt with a rush, indicating thereby that he had cast off all pride and self-conceit, and was prepared for his perilous ascent to the realms above, so should you, now at the outset of your journey, take the reed of humility in your hands, in token that you appreciate the length of the way, the difficulties to be overcome, and the fallibility of the faculties upon which you depend.[22]

◆

In these days of aggressive self-assertion, when the stress of competition is so keen and the desire to make the most of oneself so universal, it may seem a little old-fashioned to preach the necessity of this virtue, but I insist for its own sake, and for the sake of what it brings, that a due humility should take the place of honour on the list.[22]

◆

Reverence for truth the fruit of humility.

For its own sake, since with it (humility) comes not only a reverence for truth, but also a proper estimation of the difficulties encountered in our search for it.[22]

❧

Truth.

At the outset do not be worried about this big subject—Truth. It is a very simple matter if each one of you starts with the desire to get as much as possible. No human being is constituted to know the truth, the whole truth, and nothing but the truth; and even the best of men must be content with fragments, with partial glimpses, never the full fruition. In this unsatisfied quest the attitude of mind, the desire, the thirst (a thirst that from the soul must rise!), the fervent longing are the be-all and the end-all.[45]

❧

Truth: what it is.

What is the student but a lover courting a fickle mistress who ever eludes his grasp? In this very elusiveness is brought out his second great characteristic—steadfastness of purpose. Unless from the start the limitations incident to our frail human faculties are frankly accepted, nothing but disappointment awaits you. The truth is the best you can get with your best endeavour, the best that the best men accept—with this you may soon learn to be satisfied, at the same time retaining a due humility and an earnest desire for an ever larger portion.[45]

❧

Not recognizing the truth—'mind-blindness.'

Only by keeping the mind plastic and receptive does the student escape perdition. It is not, as Charles Lamb remarks, that some people do not know what to do with truth when it is offered to them, but the tragic fate is to reach, after years of patient search, a condition of mind-blindness, in which the truth is not recognized, though it stares you in the face. This can never happen to a man who has followed step by step the growth of a truth, and who knows the painful phases of its evolution. It is one of the great tragedies of life that every truth has to struggle to acceptance against honest but mind-blind students. Harvey knew his contemporaries well, and for twelve successive years demonstrated the circulation of the blood before daring to publish the facts on which the truth was based. Only steadfastness of purpose and humility enable the student to shift his position to meet the new conditions in which new truths are born.[45]

◆

Professional sensitiveness.

More perhaps than any other professional man, the doctor has a curious—shall I say morbid?—sensitiveness to (what he regards) personal error. In a way this is right; but it is too often accompanied by a cocksureness of opinion which, if encouraged, leads him to so lively a conceit that the mere suggestion of mistake under any circumstances is regarded as a reflection on his honour, a reflection equally resented whether of lay or professional origin.[22]

◆

Thoroughness.

And thirdly, add to the virtue of method the *quality of thoroughness*, an element of such importance that I had thought of making it the only subject of my remarks.[22]

Let me tell you briefly what it means. A knowledge of the fundamental sciences upon which our art is based—chemistry, anatomy, and physiology—not a smattering, but a full and deep acquaintance, not with all the facts—that is impossible—but with the great principles based upon them. [22]

◆

You cannot of course in the brief years of pupilage so grasp the details of the various branches that you can surely recognize and successfully treat all cases. But here, if you mastered certain principles, is at any rate one benefit of thoroughness—you will avoid the sloughs of charlatanism. [22]

◆

You should, as students, become familiar with the methods by which advances in knowledge are made, and in the laboratory see clearly the paths the great masters have trodden, though you yourselves cannot walk therein. [22]

◆

Charlatanism.

The higher the standard of education in a profession the less marked will be the charlatanism, whereas no greater incentive to its development can be found than in sending out from our colleges men who have not had mental training sufficient to enable them to judge between the excellent and the inferior, the sound and the unsound, the true and the half true. [22]

◆

The art of detachment.

A rare and precious gift is the art of detachment, by which a man may so separate himself from a lifelong environment, as to take a panoramic view of the conditions under which he has lived and moved; it frees him from Plato's den long enough to see the realities as they are, the shadows as they appear. Could a physician attain to such an art, he would find in the state of his profession a theme calling as well for the exercise of the highest faculties of description and imagination as for the deepest philosophic insight.[23]

❦

Intellectual detachment.

I began by speaking of the art of detachment as that rare and precious quality demanded of one who wished to take a philosophical view of the profession as a whole. In another way and in another sense this art may be still more precious. There is possible to each one of us a higher type of intellectual detachment, a sort of separation from the vegetative life of the workaday world—always too much with us—which may enable a man to gain a true knowledge of himself and of his relations to his fellows. Once attained, self-deception is impossible, and he may see himself even as he is seen —not always as he would like to be seen—and his own deeds and the deeds of others stand out in their true light. In such an atmosphere pity for himself is so commingled with sympathy and love for others that there is no place left for criticism or for a harsh judgement of his brother. But, as Sir Thomas Browne—most liberal of men and most distinguished of general practitioners—so beautifully remarks: 'These are thoughts of things which thoughts but tenderly touch,' and it may be sufficient to remind this audience, made up of practical men, that the word of action is stronger than the word of speech.[23]

◆

The art of detachment.

In the first place, acquire early the *art of detachment*, by which I mean the faculty of isolating yourselves from the pursuits and pleasures incident to youth.[22] (See *Work*.)

◆

Occasionally we do find an individual who takes to toil as others to pleasure, but the majority of us have to wrestle hard with the original Adam, and find it no easy matter to 'scorn delights and live laborious days.'[22] (See *Work*.)

◆

Of special importance is this gift (of isolating yourselves from the pursuits and pleasures incident to youth) to those of you who reside for the first time in a large city, the many attractions of which offer a serious obstacle to its acquisition. The discipline necessary to secure this art brings in its train habits of self-control, and forms a valuable introduction to the stern realities of life.[22] (See *Work*.)

◆

I need scarcely warn you against too close attention to your studies. I have yet to meet a medical student, the heyday in whose blood had been quite tamed in his college days; but if you think I have placed too much stress upon isolation in putting the *art of detachment* first in order amongst the *desiderata*, let me temper the hard saying by telling you how with 'labours assiduous due pleasures to mix.'[22] (See *Work.*)

◆

Pills and potions.

It cannot be denied that we have learned more rapidly how to prevent than how to cure diseases, but with a definite outline of our ignorance we no longer live now in a fool's paradise, and fondly imagine that in all cases we control the issues of life and death with our pills and potions.[25]

◆

It took the profession many generations to learn that fevers ran their course, influenced very little, if at all, by drugs, and the £60 which old Dover complained was spent in drugs in a case of ordinary fever about the middle of the eighteenth century is now better expended on a trained nurse, with infinitely less risk, and with infinitely greater comfort to the patient.[25]

◆

With the diminished reliance upon drugs, there has been a return with profit to the older measures of diet, exercise, baths, and frictions, the remedies with which the Bithynian Asclepiades doctored the Romans so successfully in the first century.[25]

◆

Though used less frequently, medicines are now given with infinitely greater skill; we know better their indications and contra-indications; and we may safely say (reversing the proportion of fifty years ago) that for one damaged by dosing, one hundred are saved.[25]

ENCOURAGEMENT AND INFLUENCE IN MEDICINE

MISSIONARY WORK

There are regions, ***in partibus infidelium,*** to which you will go as missionaries, carrying the gospel of loyalty to truth in the science and in the art of medicine, and your lives of devotion may prove to many a stimulating example.[26]

As willing to teach as to be taught.

You cannot afford to stand aloof from your professional colleagues in any place. Join their associations, mingle in their meetings, giving of the best of your talents, gathering here, scattering there; but everywhere showing that you are at all times faithful students, as willing to teach as to be taught.[26]

◆

Masters in medicine.

Linacre and his successors, Caius, Harvey, and Glisson, brought the new learning from Italy, and, moreover, gave to English medicine that smack of culture, that tincture so peculiarly its own. From Holland a succeeding generation drew rich stores of knowledge, and the methods of teaching of the great Boerhaave were quickly adopted by English and Scotch students. From France came next the new science of Bichat, the new art of Laënnec, and the new methods of Louis. To another group the great teachers of Austria contributed accuracy in clinical methods, a zest for the study of special branches and a much-needed, at the time, therapeutic nihilism. The debt of the present generation to Germany can never be paid. Think of the scores who have found inspiration in our common master Virchow; and in the scientific study of disease the Fatherland is still in the van. The great republic of medicine knows and has known no national boundaries, and post-graduate study in other lands gives that broad mental outlook and that freedom from the trammels of local prejudice which have ever characterized the true physician.[2]

Louis: his influence through his pupils.

Powerful as was the effect of Louis's writings on American medicine, it cannot compare with the influence which he exerted through his pupils, who 'caught his clear accents, learned his great language, made him their model.' Of the great triumvirate of the French school of the fourth decade, Louis possessed a singular power of attracting hard-working capable men, and this in spite of the fact that his rivals and friends, Chomel and Andral, possessed more brilliant gifts of a certain kind. As a writer in the *Lancet* said (1872, II), 'Year by year fresh bands of students came to imbibe from his lips the instruction which their predecessors had abandoned with reluctance, till his academic progeny knew no distinction of race or even colour, but coalesced into a noble band of enthusiasts in the cause of medicine, of science, and of humanity.' In this academic progeny Louis's American pupils take a very unusual position. Among the thousands in the profession of this country who have during this century sought light and learning in the older lands, the group of young men who studied in Paris, between 1830 and 1840, had no predecessors and have had no successors. Partly because the time was ripe, and they were active agents in bringing the new art and science to the New World, partly owing to inherent capabilities, &c., but not a little because the brightest minds among them fell under the influence of Louis—they more than any others gave an impetus, which it still feels, to the scientific study of medicine in the United States.[30]

SILENCE AND SELF-CONTROL

AEQUANIMITAS

Let me recall to your minds an incident related of that best of men and wisest of rulers, Antoninus Pius, who, as he lay dying in his home at Lorium in Etruria, summed up the philosophy of life in the watchword, *Aequanimitas*. As for him, about to pass *flammantia moenia mundi* (the flaming ramparts of the world), so for you, fresh from Clotho's spindle, a calm equanimity is the desirable attitude. [20]

The careless tongue.

'Well, so have I, and you ought always to put the most charitable construction on such remarks; the same people when I come back will probably say I have returned. Sometimes remarks of this sort are made carelessly, as men trample upon worms; sometimes from wantonness, as boys pull off the wings of flies and pierce them with pins; sometimes for spite, as we kill fleas; sometimes for experiment, as philosophers torture dogs; but seldom from wickedness, as pagans skin saints, and as Christians skin one another.'[12] (Bassett.)

◆

The unruly member.

Things medical and gruesome have a singular attraction for many people, and in the easy days of convalescence a facile-tongued nurse may be led on to tell of 'moving incidents' in ward or theatre, and once untied, that unruly member is not apt to cease wagging with the simple narration of events.'[15]

◆

The discreet nurse.

To talk of diseases is a sort of Arabian Nights' entertainment to which no discreet nurse will lend her talents.[15]

◆

Imperturbability.

In a true and perfect form, imperturbability is indissolubly associated with wide experience and an intimate knowledge of the varied aspects of disease. With such advantages he is so equipped that no eventuality can disturb the mental equilibrium of the physician; the possibilities are always manifest, and the course of action clear.[20]

◆

Imperturbability means coolness and presence of mind under all circumstances, calmness amid storm, clearness of judgement in moments of grave peril, immobility, impassiveness, or, to use an old and expressive word, phlegm. It is the quality which is most appreciated by the laity, though often misunderstood by them; and the physician who has the misfortune to be without it, who betrays indecision and worry, and who shows that he is flustered and flurried in ordinary emergencies, loses rapidly the confidence of his patients. [20]

◆

Imperturbability often mistaken for hardness.

From its very nature this precious quality (imperturbability) is liable to be misinterpreted, and the general accusation of hardness, so often brought against the profession, has here its foundation. [20]

◆

Value of callousness.

Keen sensibility is doubtless a virtue of high order, when it does not interfere with steadiness of hand or coolness of nerve; but for the practitioner in his working-day world, a callousness which thinks only of the good to be effected, and goes ahead regardless of smaller considerations, is the preferable quality. [20]

◆

Failure.

It is sad to think that, for some of you, there is in store disappointment, perhaps failure. You cannot hope, of course, to escape from the cares and anxieties incident to professional life. Stand up bravely, even against the worst. [20]

◆

Vasomotor control.

The first essential is to have your nerves well in hand. Even under the most serious circumstances, the physician or surgeon who allows 'his outward action to demonstrate the native act and figure of his heart in complement extern,' who shows in his face the slightest alteration, expressive of anxiety or fear, has not his medullary centres under the highest control, and is liable to disaster at any moment. I have spoken of this to you on many occasions, and have urged you to educate your nerve centres so that not the slightest dilator or contractor influence shall pass to the vessels of your face under any professional trial.[20]

❧

Value of an inscrutable face.

Far be it from me to urge you, ere Time has carved with his hours those fair brows, to quench on all occasions the blushes of ingenuous shame, but in dealing with your patients emergencies demanding these should certainly not arise, and at other times an inscrutable face may prove a fortune.[20]

❧

The silent workers.

And in closing, may I say a few words to the younger practitioners in the audience whose activities will wax, not wane, with the growing years of the century which opens so auspiciously for this school, for this city, and for our country. You enter a noble heritage, made so by no efforts of your own, but by the generations of men who have unselfishly sought to do the best they could for suffering mankind. Much has been done, much remains to do; a way has been opened, and to do the possibilities in the scientific development of medicine there seems to be no limit. Except in its application, as general practitioners, you will not have much to do with this. Yours is a higher and more sacred duty : think not to light a light before men that they may see your good works ; contrariwise, you belong to the great army of quiet workers, physicians and priests, sisters and nurses, all the world over, the members of which strive not, neither do they cry, nor are their voices heard in the streets, but to them is given the ministry of consolation in sorrow, need, and sickness. Like the ideal wife of whom Plutarch speaks, the best doctor is often the one of whom the public hears the least ; but nowadays, in the fierce light that beats upon the hearth, it is increasingly difficult to lead the secluded life in which our best work is done. To you the silent workers of the ranks, in villages and country districts, in the slums of our large cities, in the mining camps and factory towns, in the homes of the rich, and in the hovels of the poor, to you is given the harder task of illustrating with your lives the Hippocratic standards of learning, of sagacity, of humanity, and of probity. Of learning, that you may apply in your practice the best that is known in our art, and that with the increase in your knowledge there may be an increase in that priceless endowment of sagacity, so that to all, everywhere, skilled succour may come in the hour of need. Of a humanity, that will show, in your daily life, tenderness and consideration to the weak, infinite pity to the suffering, and broad charity to all. Of a probity, that will make you under all circumstances true to yourselves, true to your high calling, and true to your fellow man. [24]

PATIENT DEVOTION TO DUTY AND HIGH IDEALS

THE CALL OF LIFE

Chief among the hard sayings of the Gospels is the declaration, He that loveth father or mother or son or daughter more than Me is not worthy of Me. Yet the Spirit has made possible its acceptance, and that which is responsible for Christianity as it is—or rather, perhaps, as it was—is the same which in all ages has compelled men to follow ideals, even at the sacrifice of the near and dear ones at home. In varied tones, to all, at one time or another, the call comes; to one, to forsake all and follow Him; to another, to scorn delights and live the laborious days of a student; to the third, to renounce all in the life Sannyasi. Many are the wand-bearers, few are the mystics, as the old Greek has it, or, in the words which we know better, 'many are called, but few are chosen.' The gifts were diversified, but the same spirit animated the 'flaming heart of St. Theresa,' the patient soul of Palissy the potter, and the mighty intellect of John Hunter. [12]

The busy, useful, and happy life.

. . . What I mean by 'better women' is that the eyes of your souls have been opened, the range of your sympathies has been widened, and your characters have been moulded by the events in which you have been participators during the past two years. [14]

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Practically there should be for each of you a busy, useful, and happy life; more you cannot expect; a greater blessing the world cannot bestow. [14]

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Busy you will certainly be, as the demand is great, both in private and public, for women with your training.

Useful your lives must be, as you will care for those who cannot care for themselves, and who need about them, in the day of tribulation, gentle hands and tender hearts. [14]

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A debt to our times.

And happy lives shall be yours, because busy and useful; having been initiated into the great secret that happiness lies in absorption in some vocation which satisfies the soul; that we have here to add what we can *to*, not to get what we can *from*, life. [14]

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Great men.

'I am glad I know what great men are. I am glad I know of what they are made, and how they made themselves great, though this knowledge has broken the last of my household gods; yet it has taken away the flaming sword that stood before the gates of this Paradise, where may still be seen the track of the serpent and of the devil himself, so I will keep out of bad company.'[12] (Bassett.)

Women: old and new.

Nowhere in ancient history, sacred or profane, do we find instances of the devoted heroism of women such as dot the annals of the Catholic Church, or such as can be paralleled in our own century. Tender maternal affection, touching filial piety, were there; but the spirit abroad was that of Deborah not of Rizpah, of Jael not Dorcas.[14]

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The voiceless.

The saddest lament in Oliver Wendell Holmes's poems is for the voiceless,—

'for those who never sing,
But die with all their music in them.'

The extracts which I have read show Dr. Bassett to have been a man of no ordinary gifts, but he was among the voiceless of the profession. Nowadays, environment, the opportunity for work, the skirts of happy chance, carry men to the summit. To those restless spirits who have had ambition without opportunities, and ideals not realizable in the world in which they move, the story of his life may be a solace. I began by saying that I would tell you of a man of whom you had never heard, of a humble student in a little town in Alabama. What of the men whom he revered, and for whom in 1836 he left wife and children? Are they better known to us? To-day scarcely one of those whom he mentions touches us with any firmness from the past. Of a majority of them it may be said, they are as though they had not been. Velpeau, Andral, Broussais, the great teachers whom Bassett followed, are shadowy forms (almost as indistinct as the pupil), dragged out to the daylight by some *laudator temporis acti*, who would learn philosophy in history. To have striven, to have made an effort, to have been true to certain ideals—these alone are worth the struggle. Now and again in a generation, one or two snatch something from dull oblivion; but for the rest of us, sixty years?—we, too, are with Bassett and his teachers—and

'no one asks
Who or what we have been,
More than that he asks what waves,
In the moonlit solitudes mild
Of the midmost ocean, have swelled,
Foam'd for a moment, and gone.'[12]

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Visions of an Agnostic.

To a friend Bassett writes on the date of April 5:—

'This world has never occupied a larger share of my attention or love. I have asked but little of it, and got but little of what I asked. It has for many years been growing less and less in my view, like a receding spirit in space; but no better land has appeared to my longing vision; what lies beyond me has become insignificant, before me it is a vast interminable void, but not a cheerless one, as it is full of pleasant dreams and visions and glorious hopes. I have covered it with the landscape of Claude, and peopled it with the martyrs of science, the pioneers of truth, the hound-hunted and crucified of this world, that have earned and then asked for bread and received a serpent—all who have suffered for the truth. How glorious it is to contemplate in the future these time-buffeted at rest, with their lacerated feelings soothed as mine have been this day by the tender regard your wife has manifested for my future well-being.'[12]

The utility cry.

In the older States utility is no longer regarded as the test of fitness, and the value of the intellectual life has risen enormously in every department. Germany must be our model in this respect. She is great because she has a large group of men pursuing pure science with unflagging industry, with self-denying zeal, and with high ideals. No secondary motives sway their minds, no cry reaches them in the recesses of their laboratories, 'Of what practical utility is your work?' but, unhampered by social or theological prejudices, they have been enabled to cherish 'the truth which has never been deceived—that complete truth which carries with it the antidote against the bane and danger which follow in the train of half-knowledge.'[21] (Helmholtz.)

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The three great lessons of life.

A conscientious pursuit of Plato's ideal perfection may teach you the three great lessons of life. You may learn to consume your own smoke. The atmosphere is darkened by the murmurings and whimperings of men and women over the non-essentials, the trifles that are inevitably incident to the hurly-burly of the day's routine. Things cannot always go your way. Learn to accept in silence the minor aggravations, cultivate the gift of taciturnity and consume your own smoke with an extra draught of hard work, so that those about you may not be annoyed with the dust and soot of your complaints. More than any other the practitioner of medicine may illustrate the second great lesson, that we are here not to get all we can out of life for ourselves, but to try to make the lives of others happier. This is the essence of that oft-repeated admonition of Christ, 'He that findeth his life shall lose it, and he that loseth his life for My sake shall find it,' on which hard saying if the children of this generation would only lay hold, there would be less misery and discontent in the world. It is not possible for any one to have better opportunities to live this lesson than you will enjoy. The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head. Often the best part of your work will have nothing to do with potions and powders, but with the exercise of an influence of the strong upon the weak, of the righteous upon the wicked, of the wise upon the foolish. To you, as the trusted family counsellor, the father will come with his anxieties, the mother with her hidden grief, the daughter with her trials, and the son with his follies. Fully one-third of the work you do will be entered in other books than yours. Courage and cheerfulness will not only carry you over the rough places of life, but will enable you to bring comfort and help to the weak-hearted and will console you in the sad hours when, like Uncle Toby, you have 'to whistle that you may not weep.'[24]

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The student life. Learn to love the freedom of the student life, only too quickly to pass away; the absence of the coarser cares of after days, the joy in comradeship, the delight in new work, the happiness in knowing that you are making progress. Once only can you enjoy these pleasures. The seclusion of a student life is not always good for a man, particularly for those of you who will in after years engage in general practice, since you will miss that facility of intercourse upon which often the doctor's success depends. On the other hand sequestration is essential for those of you with high ambitions proportionate to your capacity. It was for such that St. Chrysostom gave his famous counsel: 'Depart from the highways and transplant thyself into some enclosed ground, for it is hard for a tree that stands by the wayside to keep its fruit till it be ripe.'[24]

❧

Ideals, value of.

Sitting in Lincoln Cathedral and gazing at one of the loveliest of human works—for such the angel choir has been said to be—there arose within me, obliterating for the moment the thousand heraldries and twilight saints and dim emblazonings, a strong sense of reverence for the minds which had conceived and the hands which had executed such things of beauty. What manner of men were they who, in those (to us) dark days, could build such transcendent monuments? What was the secret of their art? By what spirit were they moved? Absorbed in thought, I did not hear the beginning of the music, and then, as a response to my reverie and arousing me from it, rang out the clear voice of the boy leading the antiphon, 'That Thy power, Thy glory, and the mightiness of Thy kingdom might be known unto men.' Here was the answer.[22]

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Always seek your own interests, make of a high and sacred calling a sordid business, regard your fellow creatures as so many tools of trade, and, if your heart's desire is for riches, they may be yours; but you will have bartered away the birthright of a noble heritage, traduced the physician's well-deserved title of the Friend of Man, and falsified the best traditions of an ancient and honourable guild.[22]

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And though this course does not necessarily bring position or renown, consistently followed it will at any rate give to your youth an exhilarating zeal and a cheerfulness which will enable you to surmount all obstacles—to your maturity a serene judgement of men and things, and that broad charity without which all else is nought—to your old age that greatest of blessings, peace of mind; a realization, maybe, of the prayer of Socrates for the beauty in the inward soul and for unity of the outer and the inner man; perhaps, of the promise of St. Bernard, *pax sine crimine*, *pax sine turbine*, *pax sine rixa*.[22]

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And, if the fight is for principle and justice, even when failure seems certain, where many have failed before, cling to your ideal, and, like Childe Roland before the dark tower, set the slug-horn to your lips, blow the challenge, and calmly await the conflict.[20]

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Not that we all live up to the highest ideals, far from it—we are only men. But we have ideals, which mean much, and they are realizable, which means more.[25]

The Gehazis.

Of course there are Gehazis among us who serve for shekels, whose ears hear only the lowing of the oxen and the jingling of the guineas, but these are exceptions. The rank and file labour earnestly for your good, and self-sacrificing devotion to your interests animates our best work.[25]

❦

Methods and ideals.

No other profession can boast of the same unbroken continuity of methods and of ideals. We may indeed be justly proud of our apostolic succession. Schools and systems have flourished and gone, schools which for generations have swayed the thought of our guild; the philosophies of one age have become the absurdities of the next, and the foolishness of yesterday has become the wisdom of to-morrow; through long ages which were slowly learning what we are hurrying to forget, amid all the changes and chances of twenty-five centuries, the profession has never lacked men who have lived up to these Greek ideals. They were those of Galen and Aretaeus, of men of the Alexandrian and Byzantine schools, of the best of the Arabians, of the men of the Renaissance, and they are ours to-day.[23]

❦

A second distinctive feature is the remarkable solidarity. Of no other profession is the word 'universal' applicable in the same sense. The celebrated phrase used of the Catholic Church is in truth much more appropriate when applied to medicine. It is not the prevalence of disease or the existence everywhere of special groups of men to treat it that betokens this solidarity, but it is the identity throughout the civilized world of our ambitions, our methods and our work. To wrest from nature the secrets which have perplexed philosophers in all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions. To carefully observe the phenomena of life in all its phases, normal and perverted, to make perfect that most difficult of all arts, the art of observation, to call to aid the science of experimentation, to cultivate the reasoning faculty, so as to be able to know the true from the false—these are our methods. To prevent disease, to relieve suffering, and to heal the sick—this is our work. The profession in truth is a sort of guild or brotherhood, any member of which can take up his calling in any part of the world and find brethren whose language and methods and whose aims and ways are identical with his own. [23]

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Thirdly, its progressive character. Based on science, medicine has followed and partaken of its fortunes, so that in the great awakening which has made the nineteenth memorable among centuries, the profession received a quickening impulse more powerful than at any period in its history. With the sole exception of the mechanical sciences, no other department of human knowledge has undergone so profound a change—a change so profound that we who have grown up in it have but slight appreciation of its momentous character. And not only in what has been actually accomplished in unravelling the causes of disease, in perfecting methods of prevention, and in wholesale relief of suffering, but also in the unloading of old formulae, and in the substitution of the scientific spirit of free inquiry for cast-iron dogmas, we see a promise of still greater achievement and of a more glorious future.[23]

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And lastly, the profession of medicine is distinguished from all others by its singular beneficence. It alone does the work of charity in a Jovian and God-like way, dispensing with a free hand truly Promethean gifts. There are those who listen to me who have seen three of the most benign endowments granted to the race since the great Titan stole fire from heaven. Search the scriptures of human achievement and you cannot find any way to equal in beneficence the introduction of anaesthesia, sanitation, with all that it includes, and asepsis—a short half-century's contribution towards the practical solution of the problems of human suffering, regarded as eternal and insoluble. We form almost a monopoly or trust in this business. Nobody else comes into active competition with us, certainly not the other learned professions which continue along the old lines. Every new year sees some new conquest, so that we have ceased to wonder. The work of half a dozen men, headed by Laveran, has made waste places of the earth habitable, and the wilderness to blossom like the rose. The work of Walter Reed and his associates will probably make yellow fever as scarce in the Spanish Main as is typhus with us. There seems to be no limit to the possibilities of scientific medicine, and while philanthropists are turning to it as to the hope of humanity, philosophers see, as in some far-off vision, a science from which may come in the prophetic words of the Son of Sirach, 'Peace over all the earth.'[23]

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Patience.

It has been said that 'in patience ye shall win your souls,' and what is this patience but an equanimity which enables you to rise superior to the trials of life?[20]

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Persistency in the midst of loneliness.

Your very hopes may have passed out of sight, as did all that was near and dear to the patriarch at the Jabbok ford, and, like him, you may be left to struggle in the night alone. Well for you, if you wrestle on, for in persistency lies victory, and with the morning may come the wished-for blessing.[20]

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Defeat.

But not always; there is a struggle with defeat which some of you will have to bear, and it will be well for you in that day to have cultivated a cheerful equanimity.[20]

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Face disaster boldly.

Even with disaster ahead and ruin imminent, it is better to face them with a smile, and with the head erect, than to crouch at their approach.[20]

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Heroism and devotion.

The sick love-child of Israel's sweet singer, the plague-stricken hopes of the great Athenian states-man, Elpenor, bereft of his beloved Artemidora, and 'Tully's daughter mourned so tenderly,' are not of any age or any race—they are here with us to-day, with the Hamlets, the Ophelias, and the Lears. Amid an eternal heritage of sorrow and suffering our work is laid, and this eternal note of sadness would be insupportable if the daily tragedies were not relieved by the spectacle of the heroism and devotion displayed by the actors. [45]

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Devotion to duty.

Quickly there arises the memory of the men who have done so much for British medicine in that great empire (India). Far from their homes, far from congenial surroundings, and far from the stimulus of scientific influences, Annesley, Ballingall, Twining, Morehead, Waring, Parkes, Cunningham, Lewis, Vandyke Carter, and many others have upheld the traditions of Harvey and Sydenham. [4]

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Recognize the poetry of life in the humdrum routine.

Nothing will sustain you more potently in your humdrum routine, as perhaps it may be thought, than the power to recognize the true poetry of life—the poetry of the commonplace, of the ordinary man, of the plain, toil-worn woman, with their loves and their joys, their sorrows and their griefs. The comedy, too, of life will be spread before you, and nobody laughs more often than the doctor at the pranks Puck plays upon the Titanias and the Bottoms among his patients. The humorous side is really almost as frequently turned towards him as the tragic. Lift up one hand to heaven and thank your stars if they have given you the proper

Sense of humour an essential.

sense to enable you to appreciate the inconceivably droll situations in which we catch our fellow creatures. Unhappily, this is one of the free gifts of the gods, unevenly distributed, not bestowed on all, or on all in equal portions. In undue measure it is not without risk, and in any case in the doctor it is better appreciated by the eye than expressed on the tongue. Hilarity and good humour, a breezy cheerfulness, a nature 'sloping towards the southern side,' as Lowell has it, help enormously both in the study and in the practice of medicine. To many of a sombre and sour disposition it is hard to maintain good spirits amid the trials and tribulations of the day, and yet it is an unpardonable mistake to go about among patients with a long face.[45]

A nature 'sloping towards the southern side.'

CHARITY AND FRATERNITY IN MEDICINE

CHARITY

It may be that in the hurry and bustle of a busy life I have given offence to some—who can avoid it? Unwittingly I may have shot an arrow o'er the house and hurt a brother—if so, I am sorry, and I ask his pardon. So far as I can read my heart I leave you in charity with all. I have striven with none, not for the reason given by Walter Savage Landor, because none was worth the strife, but because I have had a deep conviction of the hatefulness of strife, of its uselessness, of its disastrous effects, and a still deeper conviction of the blessings that come with unity, peace, and concord. And I would give to each one of you, my brothers—you who hear me now, and to you who may elsewhere read my words—to you who do our greatest work, labouring incessantly for small rewards in towns and country places—to you the more favoured ones who have special fields of work—to you teachers and professors and scientific workers—to one and all, throughout the length and breadth of the land—I give a single word as my parting commandment:—'IT IS NOT HIDDEN FROM THEE, NEITHER IS IT FAR OFF. IT IS NOT IN HEAVEN, THAT THOU SHOULDEST SAY, WHO SHALL GO UP FOR US TO HEAVEN, AND BRING IT UNTO US, THAT WE MAY HEAR IT, AND DO IT? NEITHER IS IT BEYOND THE SEA, THAT THOU SHOULDEST SAY, WHO SHALL GO OVER THE SEA FOR US, AND BRING IT UNTO US, THAT WE MAY HEAR IT, AND DO IT? BUT THE WORD IS VERY NIGH UNTO THEE, IN THY MOUTH, AND IN THY HEART, THAT THOU MAYEST DO IT'—CHARITY.[41]

Quarrels of doctors.

The quarrels of doctors make a pretty chapter in the history of medicine. Each generation seems to have had its own. The Coans and Cnidians, the Arabians and Galenists, the humoralists and the solidists, the Brunonians and the Broussaisians, the homoeopaths and the regulars, have in different centuries rent the robe of Aesculapius. But these larger quarrels are becoming less and less intense, and in the last century no new one of moment sprang up; and it is safe to predict that in the present century, when science has fully leavened the dough of homoeopathy, the great breach of our day will be healed.[16]

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So far as my observation goes, the fault lies with the older men. The young fellow, if handled aright and made to feel that he is welcomed, not an intruder to be shunned, is only too ready to hold out the hand of fellowship. The medical society comes in here as professional cement. The meeting in a friendly, social way, with a free and open discussion of affairs, fosters a spirit that refuses to recognize in differences of opinion on the non-essentials of life a cause of personal animosity or ill-feeling. An aptitude of mind habitually friendly, more particularly to the young man, even though you feel him to be the David to whom your kingdom may fall; a little of the old-fashioned courtesy which makes a man shrink from wounding the feelings of a brother practitioner, in honour preferring another;—with such a spirit abroad in the society and among its older men, there is no room for envy, hatred, malice, or any uncharitableness.[16]

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The practice of medicine calls equally for the exercise of the heart and the head; and when a man has done his best, to have his motives misunderstood and his conduct of a case harshly criticized, not only by the family, but by a colleague who has been called in, small wonder, when the opportunity arises, if the old Adam prevails and he pays in kind. So far as my observation goes, there are three chief causes for the quarrels of doctors. The first is lack of proper friendly intercourse, by which alone we can know our colleagues. It is the duty of the older man to look on the younger one who settles near him not as a rival, but as a son. He will do to you just what you did to the older practitioner, when, as a young man, you started—get a good many of your cases; but if you have the sense to realize that this is inevitable, unavoidable, and the way of the world, and if you have the sense to talk over, in a friendly way, the first delicate situation that arises, the difficulties will disappear and recurrences of a misunderstanding may be made impossible. The young men should be tender with the sensibilities of their seniors, deferring to their judgement and taking counsel with them.[41]

Friendly intercourse needed.

Training an important factor.

Whether a man will treat his professional brethren in a gentlemanly way or in a narrow illiberal spirit is partly a matter of temperament, partly a matter of training. If we had only to deal with one another the difficulties would be slight, but it must be confessed that the practice of medicine among our fellow creatures is often a testy and choleric business. When one has done his best, or when a mistake has arisen through lack of special knowledge, but more particularly when, as so often happens, our heart's best sympathies have been engaged, to be misunderstood by the patient and his friends, to have evil motives imputed and to be maligned, is too much for human endurance, and justifies a righteous indignation.[23]

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Charity.

When a man reaches the climacteric, and has long passed beyond the professional stage of his reputation, we who are still 'in the ring' must exercise a good deal of charity, and discount largely the *on dits* which indiscreet friends circulate.[6]

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Drugs—the most uncertain element in our art.

Homoeopathy.

It is too late in this day of scientific medicine to prattle of such antique nonsense as is indicated in the 'pathies.' We have long got past the stage when any 'system' can satisfy a rational practitioner, long past the time when a difference of belief in the action of drugs—the most uncertain element in our art—should be allowed to separate men with the same noble traditions, the same hopes, the same aims and ambitions. It is not as if our homoeopathic brothers are asleep; far from it, they are awake—many of them at any rate—to the importance of the scientific study of disease, and all of them must realize the anomaly of their position. It is distressing to think that so many good men live isolated, in a measure, from the great body of the profession. The original grievous mistake was ours—to quarrel with our brothers over infinitesimals was a most unwise and stupid thing to do. That we quarrel with them now is solely on account of the old Shibboleth under which they practise. Homoeopathy is as inconsistent with the new medicine as is the old-fashioned polypharmacy, to the destruction of which it contributed so much. The rent in the robe of Aesculapius, wider in this country than elsewhere, could be repaired by mutual concessions—on the one hand by the abandonment of special designations, and on the other by an intelligent toleration of therapeutic vagaries which in all ages have beset the profession, but which have been mere flies on the wheels of progress.[41]

Mutual concessions necessary.

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Attitude of mind the all-essential to promotion of concord.

If young graduates could be taken more frequently as assistants or partners, the work of the profession would be much lightened, and it would promote amity and good fellowship. A man of whom you may have heard as the incarnation of unprofessional conduct, and who has been held up as an example of all that was pernicious, may be, in reality, a very good fellow, the victim of petty jealousies, the mark of the arrows of a rival faction; and you may be surprised to find that he loves his wife, and is devoted to his children, and that there are people who respect and esteem him. After all, the attitude of mind is the all-important factor in the promotion of concord. When a man is praised, or when a young man has done a good bit of work in your special branch, be thankful—it is for the common good. Envy, that pain of the soul, as Plato calls it, should never for a moment afflict a man of generous instincts who has a sane outlook in life. The men of rival schools should deliberately cultivate the acquaintance of each other and encourage their students and the junior teachers to fraternize. If you hear that a young fellow just starting has made mistakes or is a little 'off colour,' go out of your way to say a good word to him, or for him. It is the only cure; any other treatment only aggravates the malady.[41]

Say a good word for the 'off colour' man.

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Uncharitableness most pernicious of all vices.

A thoughtless evil at times.

The most widespread, the most pernicious of all vices, equal in its disastrous effects to impurity, much more disastrous often than intemperance, because destructive of all mental and moral nobility, as are the others of bodily health, is uncharitableness—the most prevalent of modern sins, peculiarly apt to beset all of us, and the chief enemy to concord in our ranks. Oftentimes it is a thoughtless evil, a sort of *tic* or trick, an unconscious habit of mind and tongue which gradually takes possession of us. No sooner is a man's name mentioned than something slighting is said of him, or a story is repeated which is to his disadvantage, or the involuntary plight of a brother is ridiculed, or even his character is traduced. In chronic and malign offenders literally, 'with every word a reputation dies.' The work of a school is disparaged, or the character of the work in a laboratory is belittled; or it may be only the faint praise that damns, not the generous meed from a full and thankful heart. We have lost our fine sense of the tragic element in this vice, and of its debasing influence on the character. It is interesting that Christ and the Apostles lashed it more unsparingly than any other. Who is there among us who does not require every day to take to heart that counsel of perfection: 'Judge not according to the appearance, but judge righteous judgement'? One of the apostles of our profession, Sir Thomas Browne, has a great thought on the question:—

The faint praise that damns.'

'While thou so hotly disclaimest the devil, be not guilty of diabolism. Fall not into one name with that unclean spirit, nor act his nature whom thou so much abhorrest—that is, to accuse, calumniate, backbite, whisper, detract, or sinistrously interpret others. Degenerous depravities, and narrow-minded vices! not only below St. Paul's noble Christian, but Aristotle's true gentleman. Trust not with some that the Epistle of St. James is apocryphal, and so read with less fear that stabbing truth, that in company with this vice thy religion is in vain. Moses broke the tables without breaking of the law; but where charity is broke the law itself is shattered, which cannot be whole without love, which is the fulfilling of it. Look humbly upon thy virtues; and though thou art rich in some, yet think thyself poor and naked without that crowning grace, which thinketh no evil, which envieth not, which beareth, hopeth, believeth, endureth all things. With these sure graces, while busy tongues are crying out for a drop of cold water, mutes may be in happiness, and sing the Trisagion in heaven.'[41]

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The honest heart.

I say advisedly an honest heart—the honest head is prone to be cold and stern, given to judgement, not mercy, and not always willing to entertain that true charity which, while it thinketh no evil, is anxious to put the best possible interpretation upon the motives of a fellow worker. It will foster, too, an attitude of generous, friendly rivalry untinged by the green peril, jealousy, that is the best preventive of the growth of a bastard scientific spirit—loving seclusion and working in a lock-and-key laboratory, as timorous of light as is a thief.[45]

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Charity.

The hardest lesson of all to learn is that the law of the higher life is only fulfilled by love, i. e. charity. Many a physician whose work is in a daily round of beneficence will say hard things and think hard things of a colleague. No sin will so easily beset you as uncharitableness towards your brother practitioner. So strong is the personal element in the practice of medicine, and so many are the wagging tongues in every parish, that evil-speaking, lying, and slandering find a shining mark in the lapses and mistakes which are inevitable in our work. There is no reason for discord and disagreement, and the only way to avoid trouble is to have two plain rules. From the day you begin practice never under any circumstances listen to a tale told to the detriment of a brother practitioner. And when any dispute or trouble does arise, go frankly, ere sunset, and talk the matter over, in which way you may gain a brother and a friend. Very easy to carry out, you may think! Far from it; there is no harder battle to fight. Theoretically there seems to be no difficulty, but when the concrete wound is rankling, and after Mrs. Jones has rubbed it in with cayenne pepper by declaring that Dr. J. told her in confidence of your shocking bungling, your attitude of mind is that you would rather see him in purgatory than make advances towards reconciliation. Wait until the day of your trial comes and then remember my words.[24]

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Tittle-tattle.

It is the confounded tales of patients that so often set us by the ears, but if a man makes it a rule never under any circumstances to believe a story told by a patient to the detriment of a fellow practitioner, even if he thinks it to be true, though the measure he metes may not be measured to him again, he will have the satisfaction of knowing that he has closed the ears of his soul to ninety-nine lies, and to have missed the hundredth truth will not hurt him.[16]

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Women, our greatest friends and our greatest enemies, are the chief sinners; and while one will exhaust the resources of the language in describing our mistakes and weaknesses, another will laud her pet doctor so indiscriminately that all others come under a sort of oblique condemnation. *Feminae* *sunt medicorum tubae* is an old and true saying. It is hard to say whether, as a whole, we do not suffer just as much from the indiscriminate praise. But against this evil we are helpless. Far otherwise, when we do not let the heard word die; not to listen is best, though that is not always possible, but silence is always possible, than which we have no better weapon in our armoury against evil-speaking, lying, and slandering. The bitterness is when the tale is believed and a brother's good name is involved. Then begins the worst form of ill-treatment that the practitioner receives, and at his own hands. He allows the demon of resentment to take possession of his soul, when five minutes' frank conversation might have gained a brother. In a small or large community what more joyful than to see the brethren dwelling together in unity? The bitterness, the rancour, the personal hostility which many of us remember in our younger days have been largely replaced by a better feeling, and while the golden rule is not always, as it should be, our code of ethics, we have certainly become more charitable the one towards the other.[23]

◆

The wagging tongues.

And the third cause of uncharitableness is the wagging tongues of others who are too often ready to tell tales and make trouble between doctors. There is only one safe rule, never listen to a patient who begins with a story about the carelessness and inefficiency of Dr. Blank. Shut him or her up with a snap, knowing full well that the same tale may be told of you a few months later. Fully half of the quarrels of doctors are fomented by the tittle-tattle of patients, and the only safeguard is not to listen. Sometimes it is impossible to check the flow of imprecation and slander, and then apply the other rule—perfectly safe, and one which may be commended as a good practice—never believe what a patient tells you to the detriment of a brother, *even though you may think it to be true.* [41]

◆

Charity of the hospital.

In the hospital, we learn to scan gently our brother man, judging not, asking no questions, but meting out to all alike a hospitality worthy of the *Hôtel Dieu*, and deeming ourselves honoured in being allowed to act as its dispensers. [14]

◆

In the hospital, too, are daily before our eyes the problems which have ever perplexed the human mind; problems not presented in the dead abstract of books, but in the living concrete of some poor fellow in his last round, fighting a brave fight, but sadly weighed, and going to his account 'unhousel'd, disappointed, unanel'd, no reckoning made.' [14]

◆

The spirit of love.

Among the ancients, many had risen to the idea of forgiveness of enemies, of patience under wrong-doing, and even of the brotherhood of man; but the spirit of Love received its incarnation only with the ever memorable reply to the ever memorable question, Who is my neighbour?—a reply which has changed the attitude of the world. [14]

Romola the nurse.

Romola, the student, helping her blind father, and full of the pride of learning, we admire; Romola, the devotee, carrying in her withered heart woman's heaviest disappointment, we pity; Romola, the nurse, doing noble deeds amid the pestilence, rescuing those who were ready to perish, we love.[15]

◆

The nurse.

There is no higher mission in this life than nursing God's poor. In so doing a woman may not reach the ideals of her soul; she may fall far short of the ideals of her head, but she will go far to satiate the longings of the heart from which no woman can escape.[15]

◆

Dreams.

To each one of us at some time, I suppose, has come the blessed impulse to break away from all such ties and follow cherished ideals. Too often it is but a flash of youth, which darkens down with the growing years. Though the dream may never be realized, the impulse will not have been wholly in vain if it enables us to look with sympathy upon the more successful efforts of others.[15]

◆

Art of giving.

May I say a word on the art of giving? The essence is contained in the well-known sentence:—'Let every man do according as he is disposed in his heart, not grudgingly, or of necessity.' Subscriptions to a cause which is for the benefit of the entire profession should truly be given as a man is disposed in his heart, not in his pocket, and assuredly not of necessity, but as a duty, even as a privilege, and as a pleasure. With the young among you the days of travail and distress are not yet over, and to give would be wrong. It is sufficient for such to have the wish; the elder brothers will bear your share; only be sure to foster those generous impulses, which are apt to be intense in direct proportion to the emptiness of the purse.[10]

◆

Beyond a modest competency the sensible doctor does not aspire, but in the profession of every state there is a third group, composed of a few men, who, dry-nursed by us, sometimes by the public, have become prosperous, perhaps wealthy. Freely they have received, freely they should give. It must be acknowledged, however, that the admonition of Sir Thomas Browne, 'should your riches increase, let your mind keep pace with them,' is not always regarded by them. There has been a good deal in the papers lately about the large fortunes left by doctors; but it has not been a pleasant feature to note, with scarcely an exception, either an entire neglect or a very beggarly remembrance of the profession in which these men had at any rate laid the foundation of their large fortunes.[10]

◆

In conclusion, may I paraphrase those noble words of Aristotle, in which he laid down the duty of the citizen to the state, as also peculiarly appropriate in defining the obligations of the doctor to his calling? No physician has a right to consider himself as belonging to himself; but all ought to regard themselves as belonging to the profession, inasmuch as each is a part of the profession; and care for the part naturally looks to care for the whole.[10]

MEDICAL EDUCATION

The Teacher
The Student
The University
The Hospital

THE SEARCHER FOR KNOWLEDGE

'He who knows not, and knows not that he knows not, is a fool. Shun him.

He who knows not, and knows that he knows not, is simple. Teach him.' (*Arabian proverb.*)

Education: what it is.

What, after all, is education but a subtle, slowly-affected change, due to the action of the externals—of the written record of the great minds of all ages, of the beautiful and harmonious surroundings of nature and of art, and of the lives, good or ill, of our fellows?—these alone educate us, these alone mould the growing mind.[21]

◆

The complex, varied influences of art, of science, and of charity; of art, the highest development of which can come only with that sustaining love for ideals which 'burns bright or dim as each are mirrors of the fire for which all thirst'; of science, the cold logic of which keeps the mind independent and free from the toils of self-deception and half-knowledge; of charity, in which we of the medical profession, to walk worthily, must live and move and have our being.[21]

◆

Education.

At the outset appreciate clearly the aims and objects each one of you should have in view—a knowledge of disease and its cure, and a knowledge of yourself. The one, special education, will make you a practitioner of medicine; the other, an inner education, that may make you a truly good man, four-square and without a flaw. The one is extrinsic and is largely accomplished by teacher and tutor, by text and by tongue; the other is intrinsic and is the mental salvation to be wrought out by each one for himself. The first may be had without the second; any one of you may become an active practitioner, without ever having sense enough to realize that through life you have been a fool; or you may have the second without the first, and without knowing much of the art, you may have the endowments of head and heart that make the little you do possess go very far in the community. What I hope to infect you with is a desire to have a due proportion of each.[24]

❧

What the profession is.

Some will tell you that the profession is underrated, unhonoured, underpaid, its members social drudges—the very last profession they would recommend a young man to take up. Listen not to these croakers; there are such in every calling, and the secret of their discontent is not hard to discover. The evils which they deprecate, and ascribe—it is difficult to say to whom—in themselves lie; evils, the seeds of which were sown when they were as you are now (students); sown in hours of idleness, in inattention to studies, in consequent failure to grasp those principles of their science without which the practice of medicine does indeed become a drudgery, for it degenerates into a business. I would rather tell you of a profession honoured above all others; one which, while calling forth the highest powers of the mind, brings you into such warm personal contact with your fellow men that the heart and sympathies of the coldest nature must needs be enlarged thereby. For, consider the practical outcome of all you gather; the active work for which your four years' study is a preparation. Will not your whole energies be spent in befriending the sick and suffering? in helping those who cannot help themselves? in rescuing valuable lives from the clutch of grim death? in cheering the loving nurses of the sick, who often hang upon your words with a most touching trust? Aye! and in lessening the sad sum of human misery and pain by spreading, so far as in you lies, the knowledge of those grand laws of health transgressed so ignorantly and yet avenged so fatally?[31]

◆

The student:

Except it be a lover, no one is more interesting as an object of study than a student. Shakespeare might have made him a fourth in his immortal group. The lunatic with his fixed idea, the poet with his fine frenzy, the lover with his frantic idolatry, and the student aflame with the desire for knowledge are of 'imagination all compact.' To an absorbing passion, a whole-souled devotion, must be joined an enduring energy, if the student is to become a devotee of the grey-eyed goddess to whose law his services are bound. Like the quest of the Holy Grail, the quest of Minerva is not for all. For the one, the pure life; for the other, what Milton calls 'a strong propensity of nature.' Here again the student often resembles the poet—he is born, not made. While the resultant of two moulding forces, the accidental, external conditions, and the hidden, germinal energies, which produce in each one of us national, family, and individual traits, the true student possesses in some measure a divine spark which sets at naught their laws. . . . There are three unmistakable signs by which you may recognize him . . . an absorbing desire to know the truth, an unswerving steadfastness in its pursuit, and an open, honest heart, free from suspicion, guile, and jealousy.[45]

how you may know him.

⁂

A word or two on method in study, though it is not an easy matter to discuss, for the very good reason that there is no one method suitable to all alike. Who will venture to settle upon so simple a matter as the best time for work ? . . . The other day I asked Edward Martin, the well-known story-writer, what time he found best for work. 'Not in the evening, and never between meals!' was his answer, which may appeal to some of my hearers. . . . Outside of the asylum there are also the two great types, the student-lark who loves to see the sun rise, who comes to breakfast with a cheerful morning face and in hilarious spirits—two hours of work and half an hour's exercise before breakfast, never so 'fit' as at 6 a.m.! We all know the type. What a contrast to the student-owl with his saturnine morning face, thoroughly unhappy, cheated by the wretched breakfast-bell of the two best hours of the day for sleep, no appetite, and permeated with an unspeakable hostility to his *vis-à-vis*, whose morning garrulity and good humour are equally offensive. Only gradually, as the day wears on and his temperature reaches 98·2°, does he become endurable to himself and to others. But see him really awake at 10 p.m.! While the plethoric lark is in hopeless coma over his books, from which it is hard to rouse him suffi-

Method in study.

The time for study.

Two types of student.

ciently to get his boots off for bed, our lean owl-friend, Saturn no longer in the ascendant, with bright eyes and cheery face, is ready for four hours of anything you wish—deep study, or

> ‘Heart affluence in discoursive talk,’

and by 2 a.m. he will undertake to unsphere the spirit of Plato. In neither a virtue, in neither a fault; we must recognize these two types of students, differently constituted owing possibly—though I have but little evidence for the belief—to thermal peculiarities.[45]

◆

Mind-training.

Get accustomed to test all sorts of book problems and statements for yourself, and take as little as possible on trust. The Hunterian ‘Do not think, but try’ attitude of mind is the important one to cultivate. The question came up one day, when discussing the grooves left on the nails after fever, how long it took for the nail to grow out, from root to edge. A majority of the class had no further interest; a few looked it up in books; two men marked their nails at the root with nitrate of silver, and a few months later had positive knowledge on the subject. They showed the proper spirit.[45]

◆

Concentration and thoroughness.

Men will not take time to get to the heart of a matter. After all, concentration is the price the modern student pays for success. Thoroughness is the most difficult habit to acquire, but it is the pearl of great price, worth all the worry and trouble

The dilettante.

of the search. The dilettante lives an easy, butterfly life, knowing nothing of the toil and labour with which the treasures of knowledge are dug out of the past, or wrung by patient research in the laboratories.[45]

◆

Isolation.

I have always been much impressed by the advice of St. Chrysostom: 'Depart from the highway and transplant thyself in some enclosed ground, for it is hard for a tree which stands by the wayside to keep her fruit till it be ripe.'[45]

◆

Concentration: its drawbacks.

Concentration has its drawbacks. It is possible to become so absorbed in the problem of the 'enclitic δε,' or the structure of the flagella of the Trichomonas, or of the toes of the prehistoric horse, that the student loses the sense of proportion in his work, and even wastes a lifetime in researches which are valueless because not in touch with current knowledge. You remember poor Casaubon, in *Middlemarch*, whose painful scholarship was lost on this account. The best preventive to this is to get denationalized early. The true student is a citizen of the world, the allegiance of whose soul, at any rate, is too precious to be restricted to a single country. The great minds, the great works, transcend all limitations of time, of language, and of race, and the scholar can never feel initiated into the company of the elect until he can approach all of life's problems from the cosmopolitan standpoint.[45]

Get denationalize early.

The self-conscious student.

A serious drawback in the student life is the self-consciousness, bred of too close devotion to books. A man gets shy, 'dysopic,' as old Timothy Bright calls it, and shuns the looks of men, and blushes like a girl. The strength of a student of men is to travel—to study men, their habits, character, mode of life, their behaviour under varied conditions, their vices, virtues, and peculiarities. Begin with a careful observation of your fellow students and of your teachers; then, every patient you see is a lesson in much more than the malady from which he suffers. Mix as much as you possibly can with the outside world, and learn its ways. The student societies, the students' union, the gymnasium, and the outside social circle should be cultivated systematically, to enable you to conquer the diffidence which goes with bookishness and which will prove a very serious drawback in after-life. I cannot too strongly impress upon the earnest and attentive men among you the necessity of overcoming this unfortunate failing in your student days. It is not easy for every one to reach a happy medium, and the distinction between a proper self-confidence and 'cheek,' particularly in junior students, is not always to be made. The latter is met with chiefly among the student pilgrims who, in travelling down the Delectable Mountains, have gone astray and have passed to the left hand, where lieth the country of Conceit, the country in which you remember the brisk lad Ignorance met Christian.[45]

Study men.

'Cheek.'

Two letters from Louis to James Jackson, Sr., show how important he thought a prolonged period of study was for a young man. He says:—

The waiting years.

'I pointed out to him (James Jackson, Jr.) the advantage it would be for science and for himself if he would devote several years exclusively to the observation of diseases. I now retain the same opinion and am strengthened in it; for the more I become acquainted with, and the more I notice him applying himself to observation, the more I am persuaded that he is fitted to render real service to science, to promote its progress. I find that he would be well pleased to follow for a certain period the vocation for which nature has fitted him; but he has stated to me that there are many difficulties which would prevent his devoting himself exclusively to observation for several years. But can these difficulties be insurmountable?'

And again:—

'Let us suppose that he should pass four more years without engaging in the practice of medicine, what a mass of positive knowledge will he have acquired! How many important results will he have been able to publish to the world during that period! After that he must necessarily become one of the bright lights of his country; others will resort to him for instruction, and he will be able to impart it with distinguished honour to himself. If all things be duly weighed, it will appear that he will soon redeem the four years, which men of superficial views will believe him to have lost.'

In another letter, the following year, just before young Jackson's departure from Paris, he refers again to this question, and urges Dr. Jackson to allow his son to devote himself exclusively to observation for several years in Boston. The extract from this letter is worth quoting:—

'Laws of nature must be discovered, not invented.' (Louis.)

'Think for a moment, sir, of the situation in which we physicians are placed. We have no legislative chambers to enact laws for us. We are our own lawgivers; or rather, we must discover the laws on which our profession rests. We must *discover* them and not invent them; for the laws of nature are not to be invented. And who is to discover these laws? Who should be a diligent observer of nature for this purpose, if not the son of a physician, who has himself experienced the difficulties of the observation of disease, who knows how few minds are fitted for it, and how few have at once the talents and inclination requisite for the task? The inclination especially, for this requires that the observer should possess a thorough regard for truth, and a certain elevation of mind, or rather of character, which we rarely meet with. All this is united in your son. You ought—for in my opinion it is a duty—you ought to consecrate him for a few years to science. This, sir, is my conviction, and I hope it will be yours also. I know very well that every one will not be of the same opinion; but what matters it, if it be yours?—if you look upon a physician, as I do, as holding a sacred office, which demands greater sacrifices than are to be made in any other profession?'[30]

Thorough regard for truth and elevation of mind essentials to the accurate observer of disease.

◆

Louis and Andral compared.

In one of his (W. W. Gerhard) letters to his brother, dated January 18, 1832, he says:—

'Dr. Louis is delivering an interesting clinic at La Pitié; he is a remarkable man, very different from the physicians of England or America, and remarkable even at Paris by the strict mathematical accuracy with which he arrives at his results; he is not a brilliant man, not of the same grade of intellect as his colleague at La Pitié, Andral.'

In another letter he gives an account of his day's work:—

A medical student's day at the French school in the thirties.

'The morning from seven to ten is occupied with the visit and clinic at the hospital; there are several distinct clinics now in actual progress; each of them has its advantages. I shall vary my attendance at the various hospitals, and select those lecturers who are of real merit. At this moment we are following Piorry at the Salpêtrière, a very distant hospital, two or three miles from our lodgings; his patients are all old women, and not interesting. My object in following his course is to obtain some interesting information on the best mode of investigating the diseases of the chest. M. Piorry has devoted special attention to this subject. From Salpêtrière we hurry to La Pitié; we hear a surgical lecture, reach home to breakfast, and then to the school of medicine. The lectures at the school, with a private course of anatomy during the hour of intermission, fill up the remainder of the day until four. Fortunately a private clinic at La Charité introduces me to a set of very interesting cases, especially on pectoral cases. Dr. Dagneau has a class who pay him ten francs a month, and enjoy the privilege of examining the patients much more conveniently than is practicable during the morning visit in the midst of a crowd of students. We dine at 5.30, and then lectures again until eight o'clock. Imagine the facilities, the delightful advantage of acquiring positive information, and what is at least as important, of learning the mode of obtaining these positive results. We see and hear the men who are so well known to us in America, learn to form

The delights of positive information and of learning the methods of acquiring these.

a correct estimate of their relative worth—in short, one of the most striking advantages of a medical visit to Europe is to acquire the sort of liberal professional feeling which is rarely secured by the continued intercourse with the same men, and the unpleasant medical politics which divide the profession in America.'[30]

◆

Relation of teacher to student.

A fraternal attitude is not easy to cultivate—the chasm between the chair and the bench is difficult to bridge. Two things have helped to put up a cantilever across the gulf. The successful teacher is no longer on a height, pumping knowledge at high pressure into passive receptacles. The new methods have changed all this. He is no longer *Sir Oracle*, perhaps unconsciously by his very manner antagonizing minds to whose level he cannot possibly descend, but he is a senior student anxious to help his juniors. When a simple, earnest spirit animates a college, there is no appreciable interval between the teacher and the taught—both are in the same class, the one a little more advanced than the other. So animated, the student feels that he has joined a family whose honour is his honour, whose welfare is his own, and whose interests should be his first consideration.[45]

◆

Teachers and teaching.

The phenomenal strides in every branch of scientific medicine have tended to overload it with detail. To winnow the wheat from the chaff and to prepare it in an easily digested shape for the tender stomachs of the first- and second-year students taxes the resources of the most capable teacher.[13]

The devotion to a subject, and the enthusiasm and energy which enable a man to keep abreast with its progress, are the very qualities which often lead him into pedagogic excesses. To reach a right judgement in these matters is not easy, and after all it may be said of teaching as Izaak Walton says of angling: 'Men are to be born so, I mean with inclinations to it.' [13]

❦

Four classes of teachers.

Professors may be divided into four classes. There is, first, the man who can think, but who has neither tongue nor technique. Though useless for the ordinary student, he may be the leaven of a faculty and the chief glory of his University. A second variety is the phonographic professor, who can talk, but who can neither think nor work. Under the old régime he repeated year by year the same lecture. A third is the man who has technique, but who can neither talk nor think; and a fourth is the rare professor who can do all three, think, talk, and work. [13]

❦

Scepticism, value of.

For the crass therapeutic credulity, so widespread to-day, and upon which our manufacturing chemists wax fat, there is no more potent antidote than the healthy scepticism bred of long study in the post-mortem room. [16]

❦

Killing routine.

Routine, killing routine, saps the vitality of many teachers who start with high aims, and who, for years, strive with all their energies against the degeneration which it is so prone to entail. In the smaller schools isolation, the absence of congenial spirits working at the same subject, favours stagnation, and after a few years the fires of early enthusiasm no longer glow in the perfunctory lectures. In many teachers the ever-increasing demands of practice leave less and less time for study, and a first-class man may lose touch with his subject through no fault of his own, but through an entanglement in outside affairs which he cannot control, yet deeply regrets. To his five natural senses the student-teacher must add two more—the sense of responsibility and the sense of proportion. Most of us start with a highly developed sense of the importance of the work, and with a desire to live up to the responsibilities entrusted to us. Punctuality, the class first, always and at all times; the best that a man has in him, nothing less; the best the profession has on the subject, nothing less; fresh energies and enthusiasm in dealing with dry details; animated, unselfish devotion to all alike; tender consideration for his assistants—these are some of the fruits of a keen sense of responsibility in a good teacher. The sense of proportion is not so easy to acquire, and much depends on the training and on the natural disposition.[45]

Sense of responsibility and proportion.

The class always first.

◆

The true greatness of a school.

The past is always with us, never to be escaped; it alone is enduring; but, amidst the changes and chances which succeed one another so rapidly in this life, we are apt to live too much for the present and too much in the future.[20]

The great possession of any University is its great names. It is not the 'pride, pomp, and circumstance' of an institution which bring honour; not its wealth, nor the number of its schools; not the students who throng its halls, but the men who have trodden in its service the thorny road through toil, even through hate, to the serene abode of Fame, climbing 'like stars to their appointed height.'[20]

❦

Man the measure of the school.

But it is a secondary matter, after all, whether a school is under State or University control, whether the endowments are great or small, the equipments palatial or humble; the fate of an institution rests not on these; the inherent, vital element, which transcends all material interests, which may give to a school glory and renown in their absence, and lacking which, all the 'pride, pomp, and circumstance' are vain—this vitalizing element, I say, lies in the men who work in its halls, and in the ideals which they cherish and teach.[22]

❦

Value of scientific men.

There is no more potent antidote to the corroding influence of mammon than the presence in a community of a body of men devoted to science, living for investigation and caring nothing for the lust of the eyes and the pride of life.[22]

❦

We forget that the measure of the value of a nation to the world is neither the bushel nor the barrel, but *mind*; and that wheat and pork, though useful and necessary, are but dross in comparison with those intellectual products which alone are imperishable.[22]

◆

Education, a life course.

The hardest conviction to get into the mind of a beginner is that the education upon which he is engaged is not a college course, not a medical course, but a life course, ending only with death, for which the work of a few years under teachers is but a preparation. Whether you will falter and fail in the race or whether you will be faithful to the end depends on the training before the start, and on your staying powers, points upon which I need not enlarge. You can all become good students, a few may become great students, and now and again one of you will be found who does easily and well what others cannot do at all, or very badly, which is John Ferriar's excellent definition of a genius.[45]

Student and genius.

◆

The art—world-wide.

The best that is known and taught in the world—nothing less can satisfy a teacher worthy of the name, and upon us of the medical faculties lies a bounden duty in this respect, since our art, co-ordinate with human suffering, is cosmopolitan.[22]

◆

The good teacher.

The aim of a school should be to have these departments in the charge of men who have, first, *enthusiasm*, that deep love of a subject, that desire to teach and extend it without which all instruction becomes cold and lifeless; secondly, *a full and personal knowledge of the branch taught*; not a second-hand information derived from books, but the living experience derived from experimental and practical work in the best laboratories.[22]

❧

Men are required who have a *sense of obligation*, that feeling which impels a teacher to be also a contributor, and to add to the stores from which he so freely draws.[22]

❧

The investigator, to be successful, must start abreast of the knowledge of the day, and he differs from the teacher, who living in the present, expounds only what is current, in that his thoughts must be in the future, and his ways and work in advance of the day in which he lives.[22]

❧

The same obligation rests on him to know and to teach the best that is known and taught in the world: on the surgeon, the obligation to know thoroughly the scientific principles on which his art is based, to be a master in the technique of his handicraft, ever studying, modifying, improving; on the physician, the obligation to study the natural history of diseases, and the means for their prevention, to know the true value of regimen, diet, and drugs in their treatment, ever testing, devising, thinking;—and upon both, to teach to their students habits of reliance, and to be to them examples of gentleness, forbearance, and courtesy in dealing with their suffering brethren.[22]

❧

Thinkers.

There is a great need in the colleges of this country of men who are thinkers as well as workers—men with ideas; men who have drunk deep of the astral wine, and whose energies are not sapped in the treadmill of the class-room.[21]

◆

Thinking—a University function.

The other function of a University is to think. Teaching current knowledge in all departments; teaching the steps by which the *status praesens* has been reached, and teaching how to teach, from the routine work of the various college faculties.[25]

◆

What I mean by the thinking function of a University, is that duty which the professional corps owes to enlarge the boundaries of human knowledge. Work of this sort makes a University great, and alone enables it to exercise a wide influence on the minds of men.[25]

◆

The very best instructor for students may have no conception of the higher lines of work in his branch, and contrariwise, how many brilliant investigators have been wretched teachers![25]

◆

In a school which wishes to do thinking as well as teaching, men must be selected who are not only thoroughly *au courant* with the best work in their department the world over, but who also have ideas, with ambition and energy to put them into force—men who can add, each one in his sphere, to the store of the world's knowledge. Men of this stamp alone confer greatness upon a University. They should be sought for far and wide; an institution which wraps itself in Strabo's cloak and does not look beyond the college gates in selecting professors may get good teachers, but rarely good thinkers.[25]

◆

Surrounded by a group of bright young minds, well trained in advanced methods, not only is the professor himself stimulated to do his best work, but he has to keep far afield and to know what is stirring in every part of his own domain.[25]

◆

With a system of fellowships and research scholarships a University may have a body of able young men, who on the outposts of knowledge are exploring, surveying, defining, and correcting. Their work is the outward and visible sign that a University is thinking.[25]

◆

Examinations.

Perfect happiness for student and teacher will come with the abolition of examinations, which are stumbling-blocks and rocks of offence in the pathway of the true student.[13]

◆

Teaching the art.

How can we make the work of the student in the third and fourth year as practical as it is in his first and second? I take it for granted we all feel it should be. The answer is: take him from the lecture-room, and take him from the amphitheatre—put him in the out-patient department, put him in the wards. It is not the systematic lecture, not the amphitheatre clinic, nor even the ward-class—all of which have their value—in which the reformation is needed, but in the whole relationship of the senior student to the hospital. During the first two years, he is thoroughly at home in the laboratories, domiciled, we may say, with his place in each one, to which he can go and work quietly under a tutor's direction and guidance. To parallel this condition in the third and fourth years certain reforms are necessary. First, in the conception of how the art of medicine and surgery can be taught. My firm conviction is that we should start the third-year student at once on his road of life. Ask any physician of twenty years' standing how he has become proficient in his art, and he will reply, by constant contact with disease; and he will add that the medicine that he learned in the schools was totally different from the medicine he learned at the bedside. The graduate of a quarter of a century ago went out with little practical knowledge, which increased only as his practice increased. In what may be called the natural method of teaching the student begins with the patient, using books and lectures as tools, as means to an end. The student starts, in fact, as a practitioner, as an observer of disordered machines, with the structure and orderly functions of which he is perfectly familiar. Teach him how to observe, give him plenty of facts to observe, and the lessons will come out of the facts themselves. For the junior student in medicine and surgery it is a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself. The whole art of medicine is in observation, as the old motto goes, but to educate the eye to see, the ear to hear, and the finger to feel takes time, and to make a beginning, to start a man on the right path, is all that we can do. We expect too much of the student and we try to teach him too much. Give him good methods and a proper point of view, and all other things will be added as his experience grows.[27]

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The second, and the most important reform, is in the hospital itself. In the interests of the medical student, of the profession, and of the public at large we must ask from the hospital authorities much greater facilities than at present enjoyed, at least by the students of a majority of the medical schools of this country (United States). The work of the third and fourth year should be taken out of the medical school entirely and transferred to the hospital, which, as Abernethy remarks, is the proper college for the medical student, in his last years at least.[27]

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It is, I think, safe to say that in a hospital with students in the wards the patients are more carefully looked after, their diseases are more fully studied and fewer mistakes made. The larger question of the extended usefulness of the hospital in promoting the diffusion of medical and surgical knowledge, I cannot here consider.[27]

❧

There is no scarcity of material; on the contrary, there is abundance. Think of the plethora of patients in this city (New York), the large majority of whom are never seen, not to say touched by a medical student. Think of the hundreds of typhoid fever patients, the daily course of whose disease is never watched or studied by our pupils! Think of how few of the hundreds of cases of pneumonia which will enter the hospital during the next three months, will be seen daily, hourly, in the wards by the fourth-year men! And yet it is for this they are in the medical school, just as much as, more indeed than they are in it to learn the physiology of the liver or the anatomy of the hip-joint.[27]

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Study of the medical art:

The great difficulty is in the third part of the education of the student, viz. his art. In the old days when a lad was apprenticed to a general practitioner, he had good opportunities to pick up the essentials of a rough and ready art, and the system produced many self-reliant, resourceful men. Then with the multiplication of the medical schools and increasing rivalry between them came the two years' course, which for half a century lay like a blight on the medical profession, retarding its progress, filling its ranks with half-educated men, and pandering directly to all sorts of quackery, humbuggery, and fraud. The awakening came about thirty years ago, and now there are few schools in this country without a four years' course, and all are trying to get clear of the old shackles and teach rational medicine in a rational way. But there are extraordinary difficulties in teaching the medical student his art. It is not hard, for example, to teach him all about the disease pneumonia, how it prevails in the winter and spring, how

some of the difficulties.

fatal it always has been, all about the germ, all about the change which the disease causes in the lungs and in the heart—he may become learned, deeply learned, on the subject—but put him beside a case, and he may not know which lung is involved, as he does not know how to find out, and if he did find out, he might be in doubt whether to put an ice-bag or a poultice on the affected side, whether to bleed or to give opium, whether to give a dose of medicine every hour or none at all, and he may not have the faintest notion whether the signs look ominous or favourable. So also with other aspects of the art of the general practitioner. A student may know all about the bones of the wrist—in fact he may carry a set in his pocket and know every facet and knob and nodule on them; he may have dissected a score of arms; and yet when he is called to see Mrs. Jones, who has fallen on the ice and broken her wrist, he may not know a Colles' from a Pott's fracture, and as for setting it *secundum artem*, he may not have the faintest notion, never having seen a case. Or he may be called to preside at one of those awful domestic tragedies—the sudden emergency, some terrible accident of birth or of childhood—that require skill, technical skill, courage—the courage of full knowledge; and if he has not been in the obstetrical wards, if he has not been trained practically, if he has not had the opportunities that are the rights of every medical student, he may fail at the critical moment; a life, two lives, may be lost, sacrificed to ignorance, often to helpless, involun-

In practice a theoretical training alone is inadequate.

Instruction in the art the greatest work of the Johns Hopkins Hospital.

tary ignorance. By far the greatest work of the Johns Hopkins Hospital has been the demonstration to the profession of the United States and to the public of this country of how medical students should be instructed in their art. I place it first because it was the most needed lesson, I place it first because it has done the most good as a stimulating example, and I place it first because never before in the history of this country have medical students lived and worked in a hospital as part of its machinery, as an essential part of the work of the wards. In saying this Heaven forbid that I should obliquely disparage the good and faithful work of my colleagues elsewhere. But the amphitheatre clinic, the ward and dispensary classes, are but bastard substitutes for a system which makes the medical student himself help in the work of the hospital as part of its human machinery. He does not see the pneumonia case in the amphitheatre from the benches, but he follows it day by day, hour by hour; he has his time arranged that he can follow it; he sees and studies similar cases, and the disease itself becomes his chief teacher, and he knows its phases and variations as depicted in the living; he learns under skilled direction when to act and when to refrain; he learns insensibly principles of practice, and he possibly escapes a nickel-in-the-slot attitude of mind, which has been the curse of the physician in the treatment of disease. And the same with the other branches of his art; he gets a first-hand knowledge, which, if he has any sense, may make

Nickel-in-the-slot attitude of mind.

him wise unto the salvation of his fellows. And all this has come about through the wise provision that the hospital was to be part of the medical school, and it has become for the senior students, as it should be, their college. Moreover, they are not in it upon sufferance and admitted through side-doors, but they are welcomed as important aids, without which the work could not be done efficiently. The whole question of the practical education of the medical student is one in which the public is vitally interested. Sane, intelligent physicians and surgeons with culture, science, and art, are worth much in a community, and they are worth paying for in rich endowments of our medical schools and hospitals. Personally there is nothing in my life in which I take greater pride than in my connexion with the organization of the medical clinic of the Johns Hopkins Hospital, and with the introduction of the old-fashioned methods of practical instruction. I desire no other epitaph than the statement that I taught medical students in the wards, as I regard this as by far the most useful and important work I have been called upon to do.[44]

Practical education.

The ward as a class-room.

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There are hundreds of earnest students, thousands of patients, and scores of well-equipped young men willing and anxious to do practical teaching. Too often, as you know full well, 'the hungry sheep look up and are not fed'; for the bread of the wards they are given the stones of the lecture-room and the amphitheatre. The dissociation of student and patient is a legacy of the pernicious system of theoretical teaching from which we have escaped in the first and second years.[27]

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Students in hospital (see 'Teaching the Art' also).

For the third- and fourth-year students, the hospital is the college; for the juniors, the out-patient department and the clinics; for the seniors, the wards. They should be in the hospital as part of its equipment, as an essential part, without which the work cannot be of the best. They should be in it as the place in which alone they can learn the elements of their art and the lesson which will be of service to them when in practice for themselves.[27]

◆

Experience.

Each case has its lesson—a lesson that may be, but is not always, learnt, for clinical wisdom is not the equivalent of experience. A man who may have seen 500 cases of pneumonia may not have the understanding of the disease which comes with an intelligent study of a score of cases, so different are knowledge and wisdom, which, as the poet truly says, 'far from being one, have oft-times no connexion.'[16]

◆

Judgement difficult.

Listen to the appropriate remark of the father of medicine, who twenty-five centuries ago had not only grasped the fundamental conception of our art as one based on observation, but had laboured also through a long life to give to the profession which he loved the saving health of science—listen, I say, to the words of his famous aphorism: 'Experience is fallacious and judgement difficult!'[16]

Uncertainties of medicine.

The problems of disease are more complicated and difficult than any others with which the trained mind has to grapple; the conditions in any given case may be unlike those in any other; each case, indeed, may have its own problem. Law, constantly looking back, has its forms and procedures, its precedents and practices. Once grasped, the certainties of divinity make its study a delight and a pastime; but who can tell of the uncertainties of medicine as an art? The science on which it is based is accurate and definite enough; the physics of a man's circulation are the physics of the waterworks of the town in which he lives, but once out of gear, you cannot apply the same rules for the repair of the one as of the other. [16]

❧

Probability.

Variability is the law of life. As no two faces are the same, so no two bodies are alike, and no two individuals react alike and behave alike under the abnormal conditions which we know as disease. This is the fundamental difficulty in the education of the physician, and one which he may never grasp, or he takes it so tenderly that it hurts, instead of boldly accepting the axiom of Bishop Butler, more true of medicine than of any other profession: ‘Probability is the guide of life.’ Surrounded by people who demand certainty, and not philosopher enough to agree with Locke, that ‘probability supplies the defect of our knowledge and guides us when that fails, and is always conversant about things of which we have no knowledge,’ the practitioner too often gets into a habit of mind which resents the thought that opinion, not full knowledge, must be his stay and prop. There is no discredit, though there is at times much discomfort, in this everlasting *perhaps* with which we have to preface so much connected with the practice of our art. It is, as I said, inherent in the subject. [16]

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Value of changes in a University teaching staff.

May not the loss of a professor bring stimulating benefits to a University? . . . It is strange of how slight value is the unit in a great system. A man may have built up a department and have gained a certain following, local or general; nay, more, he may have had a special value for his mental and moral qualities; and his fission may leave a scar, even an aching scar, but it is not for long. Those of us accustomed to the process know that the organism as a whole feels it about as much as a big polyzoon when a colony breaks off, or a hive of bees after a swarm—'tis not indeed always a calamity, oftentimes it is a relief. [44]

◆

The professor.

Change is the very marrow of his existence—a new set of students every year, a new set of assistants, a new set of associations every few years to replace those called off to other fields;—in any active department there is no constancy, no stability in the human surroundings. And in this there is an element of sadness. A man comes into one's life for a few years, and you become attached to him, interested in his work and in his welfare, and perhaps you grow to love him as a son, and then, off he goes!—it must be as bad as having a daughter married—leaving you with a bruised heart. After teaching for thirty years, and coming into very intimate contact with my assistants, my heart is all cicatrices, covered with one big 'milky patch.' [44]

⁂

In-breeding in the University.

The question may be asked whether, as professors, we do not stay too long in one place. It passes my persimmon to tell how some good men—even lovable and righteous men in other respects—have the hardihood to stay in the same position for twenty-five years. To a man of active mind too long attachment to one college is apt to breed self-satisfaction, to narrow his outlook, to foster a local spirit, and to promote senility. [44]

⁂

Collegiate chauvinism and dangers of in-breeding.

A common type of collegiate chauvinism is manifest in the narrow spirit too often displayed in filling appointments. The professoriate of the profession, the most mobile column of its great army, should be recruited with the most zealous regard to fitness, irrespective of local conditions that are apt to influence the selection. In-breeding is as hurtful to colleges as to cattle. The interchange of men, particularly of young men, is most stimulating, and the complete emancipation of the chairs which has taken place in most of our Universities should extend to the medical schools. Nothing, perhaps, has done more to place German medicine in the forefront to-day than a peripatetic professoriate, owing allegiance only to the profession at large, regardless of civic, sometimes, indeed, of national limitations and restrictions.

We acknowledge the principle in the case of the scientific chairs, and with increasing frequency act upon it, but an attempt to expand it to other chairs may be the signal for the display of rank parochialism.[23]

❧

The University spirit.

There remains now to foster that indefinite something which, for want of a better term, we call the University spirit, a something which a rich institution may not have, and with which a poor one may be saturated; a something which is associated with men and not with money, which cannot be purchased in the market or grown to order, but which comes insensibly with loyal devotion to duty and to high ideals, and without which *Nehushtan* is written on the portals of any school of medicine, however famous.[25]

BOOKS, LIBRARIES, AND MEDICAL SOCIETIES

‘RELIGIO MEDICI’

To the writings of one old physician I can urge your closest attention. There have been, and, happily, there are still in our ranks notable illustrations of the intimate relations between medicine and literature, but in the group of literary physicians Sir Thomas Browne stands preeminent. The *Religio Medici,* one of the great English classics, should be in the hands—in the heart too—of every medical student. As I am on the confessional to-day, I may tell you that no book has had so enduring an influence on my life. I was introduced to it by my first teacher, Rev. W. A. Johnson, Warden and Founder of Trinity College School, and I can recall the delight with which I first read its quaint and charming pages. It was one of the strong influences which turned my thoughts towards medicine as a profession, and my most treasured copy—the second book I ever bought—has been a constant companion for thirty-one years, *comes viae vitaeque.* [13]

The value of the local library.

The organization of a library means effort, it means union, it means progress. It does good to men who start it, who help with money, with time and with the gifts of books. It does good to the young men, with whom our hopes rest, and a library gradually and insensibly moulds the profession of a town to a better and higher status.[3]

◆

The Index Catalogue.

I need not refer in this audience to the use of the Index Catalogue in library work; it is also of incalculable value to any one interested in books. Let me give an everyday illustration. From the library of my friend, the late Dr. Rush Huidekoper, was sent to me a set of very choice old tomes, among which was a handsome folio of the works of du Laurens, a sixteenth-century physician. I had never heard of him, but was very much interested in some of his medical dissertations. In a few moments from the Index Catalogue the whole bibliography of the man was before me, the dates of his birth and death, the source of his bibliography, and where to look for his portrait. It is impossible to over-estimate the boon which this work is to book-lovers.[3]

◆

The reaper often not the sower.

Too often the reaper is not the sower. Too often the fate of those who labour at some object for the public good is to see their work pass into other hands, and to have others get the credit for enterprises which they have initiated and made possible.[19]

Books, value of.

It is hard for me to speak of the value of libraries in terms which would not seem exaggerated. Books have been my delight these thirty years, and from them I have received incalculable benefits.[19]

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To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all.[19]

◆

Only a maker of books can appreciate the labours of others at their true value. Those of us who have brought forth fat volumes should offer hecatombs at the shrines of Minerva Medica. What exsuccous, attenuated offspring they would have been but for the pabulum furnished through the placental circulation of a library! How often can it be said of us with truth, *Das beste was er ist verdankt er Andern!*[19]

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Sir William Browne's pocket library.

But when one considers the unending making of books, who does not sigh for the happy days of that thrice happy Sir William Browne, whose pocket library sufficed for his life's needs; drawing from a Greek testament his divinity, from the aphorisms of Hippocrates his medicine, and from an Elzevir Horace his good sense and vivacity?[19]

◆

Library instructors.

There should be in connexion with every library a corps of instructors in the art of reading, who would, as a labour of love, teach the young how to read.[19]

Books.

It was a singularly judicious action on the part of the men who controlled this institution (in the thirties) to begin a collection of books. They knew the true gauge of a profession's standing, not the number of its schools, not the length of the roll of students, not the material wealth of the physicians; these are as dross and slag, chaff and dust, in estimating the true worth of a profession. Books are tools, doctors are craftsmen, and so truly as one can measure the development of any particular handicraft by the variety and complexity of its tools, so we have no better means of judging the intelligence of a profession than by its general collection of books. A physician who does not use books and journals, who does not need a library, who does not read one or two of the best weeklies and monthlies, soon sinks to the level of the cross-counter prescriber, and not alone in practice, but in those mercenary feelings and habits which characterize a trade.[10]

◆

The true worker does not want textbooks; he looks to journal literature and monographs, and the extraordinary development of all special departments makes the work of a library committee very difficult unless it has a rich appropriation.[10]

◆

Four sorts of readers.

An old writer says that there are four sorts of readers: 'Sponges, which attract all without distinguishing; Howre-glasses, which receive and powre out as fast; Bagges, which only retain the dregges of the spices and let the wine escape; and Sieves, which retaine the best onely.' A man wastes a great many years before he reaches the 'sieve' stage.[19]

◆

The Medical Society.

No class of men needs friction so much as physicians; no class gets less. The daily round of a busy practitioner tends to develop an egoism of a most intense kind, to which there is no antidote. The few set-backs are forgotten, the mistakes are often buried, and ten years of successful work tend to make a man touchy, dogmatic, intolerant of correction, and abominably self-centred. To this mental attitude the Medical Society is the best corrective, and a man misses a good part of his education who does not get knocked about a bit by his colleagues in discussions and criticisms.[10]

◆

Books alone not enough.

The very marrow and fitness of books may not suffice to save a man from becoming a poor, mean-spirited devil, without a spark of fine professional feeling, and without a thought above the sordid issues of the day.[10]

◆

The safeguard against baneful individualism is the Medical Society.

The promotion and dissemination of medical knowledge throughout the State remains our important function. Physicians as a rule have less appreciation of the value of organization than the members of other professions. In large cities weakness results from the breaking into cliques and coteries, the interests of which take precedence over others of wider and more public character. Jealousies and misunderstandings are not unknown, and there is a baneful individualism—every man for himself—

a centrifugalizing influence against which the Society is and has been the only enduring protest.[10]

◆

The self-satisfied man.

The man who knows it all and gets nothing from the Society reminds one of that little dried-up miniature of humanity, the prematurely senile infant, whose tabetic marasmus has added old age to infancy. Why should he go to the Society and hear Dr. Jones on the gastric relations of neurasthenia when he can get it so much better out of the works of Einhorn or Ewald? He is weary of seeing appendices, and there are no new pelvic viscera for demonstration. It is a waste of time, he says, and he feels better at home, and perhaps that is the best place for a man who has reached this stage of intellectual stagnation.[16]

VALUE OF TRAVEL

TRAVEL

To walk the wards at Guy's or St. Bartholomew's, to see the work at the St. Louis or the Salpêtrière, to put in a few quiet months of study at one of the German university towns, will store the young man's mind with priceless treasures. I assume that he has a mind. I am not heedless of Shakespeare's sharp taunt:—

'How much the fool that hath been sent to Rome
Exceeds the fool that hath been kept at home!'

Travel.

If he (the physician) cannot go abroad, let him spend part of his short vacations in seeing how it fares with the brethren in his own country. Even a New Yorker will learn something in the Massachusetts General and the Boston City Hospitals. A trip to Philadelphia would be most helpful; there is much to stimulate the mind at the old Pennsylvania Hospital and at the University, and he would be none the worse for a few weeks spent still further south on the banks of the Chesapeake. The all-important matter is to get breadth of view as early as possible, and this is difficult without travel.[6]

◆

The future with the West.

Meanwhile, to students who wish to have the best that the world offers, let me suggest that the lines of intellectual progress are veering strongly to the West, and I predict that in the twentieth century the young English physicians will find their keenest inspiration in the land of the setting sun.[2]

◆

Catholicity.

If the work is to be effective, the student must keep in touch with scholars in other countries. How often has it happened that years of precious time have been given to a problem already solved or shown to be insoluble, because of the ignorance of what had been done elsewhere! And it is not only book knowledge and journal knowledge, but a knowledge of men that is needed. The student will, if possible, see the men in other lands. Travel not only widens the vision and gives certainties in place of vague surmises, but the personal contact with foreign workers enables him to appreciate better the failings or successes in his own line of work, perhaps to look with more charitable eyes on the work of some brother whose limitations and opportunities have been more restricted than his own.[45]

◆

Infantilism in the teacher.

Progeria in the teacher.

There are two appalling diseases which only a feline restlessness of mind and body may 'head off' in young men in the academic career. There is a remarkable bodily condition, known as infantilism, in which adolescence does not come at the appointed time, or is deferred until the twentieth year or later, and is then incomplete, so that the childish mind and the childish form and features remain. The mental counterpart is even more common among us. Intellectual infantilism is a well-recognized disease, and just as imperfect nutrition may cause failure of the marvellous changes which accompany puberty in the body, so the mind too long fed on the same diet in one place may be rendered rickety or even infantile. Worse than this may happen. A rare, but still more extraordinary, bodily state is that of progeria, in which, as though touched with the wand of some malign fairy, the child does not remain infantile, but skips adolescence, maturity, and manhood, and passes at once to senility, looking at eleven or twelve years like a miniature Tithonus 'marred and wasted,' wrinkled and stunted, a little old man among his toys. It takes great care on the part of any one to live a mental life corresponding to the ages or phases through which his body passes. How few minds reach puberty, how few come to adolescence, how few attain maturity! It is really tragic—this widespread prevalence of mental infantilism, due to careless habits of intellectual feeding. Progeria is an awful malady in a college. Few faculties escape without an instance or two, and there are certain diets which cause it just as surely as there are waters in some of the Swiss valleys that produce cretinism. I have known an entire faculty attacked. The progeric himself is a nice enough fellow to look at and to play with, but he is sterile, with the mental horizon narrowed, and quite incapable of assimilating the new thoughts of his day and generation.

◆

As in the case of many other diseases, it is more readily prevented than cured, and, taken early, change of air and diet may do much to antagonize a tendency, inherited or acquired. Early stages may be relieved by a prolonged stay at the University Baths of Berlin or Leipzig, or if at the proper time a young man is transferred from an American or Anglican to a Gallic or Teutonic diet. Through no fault of the men, but of the system, due to the unfortunate idea on the part of the denominations that in each one of the States they should have their own educational institutions, collegiate infantilism is far too prevalent, against which the freer air and better diet of the fully equipped State Universities are proving a rapid, as they are the rational, antidote.[44]

The narrow spirit.

I wish we could encourage on this continent (America) among our best students the habit of wandering. I do not know that we are quite prepared for it, as there is still great diversity in the curricula, even among the leading schools, but it is undoubtedly a great advantage to study under different teachers, as the mental horizon is widened and the sympathies enlarged. The practice would do much to lessen that narrow 'I am of Paul and I am of Apollos' spirit which is hostile to the best interests of the profession. [45]

◆

Advantages of the peripatetic life for the teacher.

It is more particularly upon the younger men that I would urge the advantages of an early devotion to a peripatetic philosophy of life. Just so soon as you have your second teeth think of a change; get away from the nurse, cut the apron-strings of your old teachers, seek new ties in a fresh environment, if possible, where you can have a certain measure of freedom and independence. Only do not wait for a fully-equipped billet almost as good as that of your master. A small one, poorly appointed, with many students and few opportunities for research, may be just what is needed to bring out the genius—latent and perhaps unrecognized—that will enable you in an unfavourable position to do well what another could not do at all, even in the most helpful surroundings. [44]

◆

Nor would I limit this desire for change to the teachers. The student of the technical school should begin his *Wanderjahre* early, not postponing them until he has taken his M.D. or Ph.D. A residence of four years in the one school is apt to breed prejudice and to promote mental astigmatism which the after years may never be able to correct.[44]

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Travel and change.

Permanence of residence, good undoubtedly for the pocket, is not always best for wide mental vision in the physician.

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You (army surgeons) are modern representatives of a professional age long past, of a day when physicians of distinction had no settled homes. You are Cyprid larvae, unattached, free-swimming, seeing much in many places; not fixed as we barnacles of civil life, head downward, degenerate descendants of the old professional Cirripeds, who laid under contribution not one but a score of cities.[26]

◆

Morgan, Rush, Shippen, Bard, Wistar, Hossack, and others had received an education comprising all that was best in the period, and had added the acquired culture which can come only from travel and wide acquaintance with the world.[4]

◆

Morgan, the founder of the medical school of the University of Pennsylvania, was away seven years, and before returning had taken his seat as a corresponding member of the French Academy of Surgery, besides having been elected a Fellow of the Royal Society.[4]

In a nomad life this common infirmity, to the entertainment of which the twin sisters, Use and Wont, lend their ever ready aid, will scarcely touch you (the army surgeon), and for this mercy give thanks; and while you must, as men, entertain many idols of the tribe, you may at least escape the idol of the cave. Enjoying the privilege of wide acquaintance with men of varied capabilities and training, you can, as spectators of their many crotchets and of their little weaknesses, avoid placing an undue estimate on your own individual powers and position.[26]

Foreign travel.

If the licence to practise meant the completion of his education, how sad it would be for the young practitioner, how distressing to his patients! More clearly than any other the physician should illustrate the truth of Plato's saying, that education is a lifelong process. The training of the medical school gives a man his direction, points him the way, and furnishes him with a chart, fairly incomplete, for the voyage, but nothing more. Post-graduate study has always been a characteristic feature of our profession. These three hundred years the schools of Italy, Holland, France, Austria, and Germany have in turn furnished instruction to the young English practitioners who believed in the catholicity of medicine, and who felt the sharp sting of the remark which associates homely wits with home-keeping youths. At first it was the grand tour, and many of the masters spent years in foreign study. In spite of our journals and international societies and increased facilities for travel, I am not sure that, among the teachers in our art the world over, medicine to-day is more cosmopolitan than it was in the seventeenth and eighteenth centuries. We now spend a few months or a year in foreign study, whereas our great-grandfathers thought nothing of two and three years. I have seen the manuscript journal of Dr. John Morgan (a Pennsylvania colonist), the founder of the first medical school in America (University of Pennsylvania), who after graduation at Edinburgh, spent three years on the continent, and became thoroughly familiar with Italian, Dutch, and French medicine, reaching such distinction as a student that he took his seat as a corresponding member of the Paris Academy of Surgery, and was elected a Fellow of the Royal Society.[2]

THE PRACTITIONER OF MEDICINE

The Student Practitioner
The General Practitioner
The Specialist
The Consultant

PHYSICIANS—TWO SORTS

There are only two sorts of doctors: those who practise with their brains, and those who practise with their tongues.[25]

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THE TRUE PHYSICIAN

The studious hard-working man who wishes to know his profession thoroughly, who lives in the hospitals and dispensaries, and who strives to obtain a wide and philosophical conception of disease and its processes, often has a hard struggle, and it may take years of waiting before he becomes successful; but such form the bulwarks of our ranks, and outweigh scores of the voluble Cassios who talk themselves into, and often out of, practice.[25]

The waiting years.

Medicine is a most difficult art to acquire. All the college can do is to teach the student principles, based on facts in science, and give him good methods of work. These simply start him in the right direction; they do not make him a good practitioner—that is his own affair. To master the art requires sustained effort, like the bird's flight which depends upon the incessant action of the wings, but this sustained effort is so hard that many give up the struggle in despair. And yet it is only by persistent intelligent study of disease upon a methodical plan of examination that a man gradually learns to correlate his daily lessons with the facts of his previous experience and of that of his fellows, and so acquires clinical wisdom. Nowadays it is really not a hard matter for a well-trained man to keep abreast of the best work of the day. He need not be very scientific so long as he has a true appreciation of the dependence of his art on science, for, in a way, it is true that a good doctor may have practice and no theory, art and no science. To keep up a familiarity with the use of instruments of precision is an all-important help in his art, and I am profoundly convinced that as much space should be given to the clinical laboratory as to the dispensary. One great difficulty is that while waiting for the years to bring the inevitable yoke, a young fellow gets stale and loses that practised familiarity with technique which gives confidence. I wish the older practitioners would remember how important it is to encourage and utilize the young men who settle near them. In every large practice there are a dozen or more cases requiring skilled aid in diagnosis, and this the general practitioner can have at hand. It is his duty to avail himself of it, and failing to do so he acts in a most illiberal and unjust way to himself and to the profession at large. Not only may the older man, if he has soft arteries in his grey cortex, pick up many points from the young fellow, but there is much clinical wisdom afloat in each parish which is now wasted or dies with the old doctor, because he and the young men have never been on friendly terms.[23]

◆

Three periods of the physician's life.

From the vantage-ground of more than forty years of hard work, Sir Andrew Clark told me that he had striven ten years for bread, ten years for bread and butter, and twenty years for cake and ale; and this is really a very good partition of the life of the student of internal medicine, of some at least, since all do not reach the last stage.[6]

◆

Time is money.

During this period (first ten years after graduation) let him (the young physician) not lose the substance of ultimate success in grasping at the shadow of present opportunity. Time is now his money, and he must not barter away too much of it in profitless work—profitless so far as his education is concerned, though it may mean ready cash.[6]

◆

The waiting years.

Five years, at least, of trial await the man after parting from his teachers, and entering upon an independent course—years upon which his future depends and from which his horoscope may be cast with certainty. It is all the same whether he settles in a country village, or goes on with hospital and laboratory work; whether he takes a prolonged trip abroad; or whether he settles down in practice, with a father or a friend—these five waiting years fix his fate so far as the student life is concerned. Without any strong natural propensity to study, he may feel such a relief after graduation that the effort to take to books is beyond his mental strength, and a weekly journal with an occasional textbook furnish pabulum enough, at least, to keep his mind hibernating. But ten years later he is dead mentally, past any possible hope of galvanizing into life as a student, fit to do a routine practice, often a capable, resourceful man, but without any deep convictions, and probably more interested in stocks or in horses than in diagnosis or therapeutics. But this is not always the fate of the student who finishes his work on Commencement Day. There are men full of zeal in practice, who give good service to their fellow creatures, who have not the capacity or the energy to keep up with the times. While they have lost interest in science, they are loyal members of the profession, and appreciate their responsibilities as such. That fateful first lustrum ruins some of our most likely material. Nothing is more trying to the soldier than inaction, to mark time while the battle is raging all about him; and waiting for practice is a serious strain under which many yield. In the cities it is not so hard to keep up: there is work in the dispensaries and colleges, and the stimulus of the medical societies; but in smaller towns and

Dead mentally in ten years without study.

in the country it takes a strong man to live through the years of waiting without some deterioration.[45]

◆

Simply seeing not all.

It is a common error to think that the more a doctor sees the greater his experience and the more he knows. No one ever drew a more skilful distinction than Cowper in his oft-quoted lines, which I am never tired of repeating in a medical audience:—

‘Knowledge and wisdom, far from being one,
Have oft-times no connexion. Knowledge dwells
In heads replete with thoughts of other men;
Wisdom in minds attentive to their own.
Knowledge is proud that he has learned so much;
Wisdom is humble that he knows no more.’[45]

◆

Sense and wisdom contrasted with knowledge.

What we call sense or wisdom is knowledge, ready for use, made effective, and bears the same relation to knowledge itself that bread does to wheat. The full knowledge of the parts of a steam engine and the theory of its action may be possessed by a man who could not be trusted to pull the lever to its throttle. It is only by collecting data and using them that you can get sense. One of the most delightful sayings of antiquity is the remark of Heraclitus about his predecessors—that they had much knowledge, but no sense.[45]

◆

Note-taking.

I wish I had time to speak of the value of note-taking. You can do nothing as a student in practice without it. Carry a small notebook which will fit into your waistcoat pocket, and never ask a new patient a question without notebook and pencil in hand. After the examination of a pneumonia case two minutes will suffice to record the essentials in the daily progress. Routine and system, when once made a habit, facilitate work, and the busier you are the more time you will have to make observations after examining a patient. Jot a comment at the end of the notes: 'clear case,' 'case illustrating obscurity of symptoms,' 'error in diagnosis,' &c. The making of observations may become the exercise of a jackdaw-like trick, like the craze which so many of us have to collect articles of all sorts. The study of the cases, the relation they bear to each other and to the cases in literature—here comes in the difficulty. Begin early to make a threefold category — clear cases, doubtful cases, mistakes. And learn to play the game fair, no self-deception, no shrinking from the truth; mercy and consideration for the other man, but none for yourself, upon whom you have to keep an incessant watch. You remember Lincoln's famous *mot* about the impossibility of fooling all of the people all of the time. It does not hold good for the individual who can fool himself to his heart's content all of the time. If necessary, be cruel; use the knife and the cautery to cure the intumescence and moral necrosis which you will feel in the posterior parietal region, in Gall and Spurzheim's centre of self-esteem, where you will find a sore spot after you have made a mistake in diagnosis. It is only by getting your cases grouped in this way that you can make any real progress in your post-collegiate education; only in this way can you gain wisdom with experience. [45]

Routine and system.

Play the game fair.

The only way to make real progress.

The desiderata of every young doctor.

Of the three well-stocked rooms which it should be the ambition of every young doctor to have in his house, the library, the laboratory, and the nursery—books, balances, and bairns—as he may not achieve all three, I would urge him to start at any rate with the books and the balances. A good weekly and a good monthly journal to begin with, and read them. Then, for a systematic course of study, supplement your college textbooks with the larger systems—Allbutt or Nothnagel—a system of surgery, and, as your practice increases, make a habit of buying a few special monographs every year. Read with two objects: first, to acquaint yourself with the current knowledge on a subject and the steps by which it has been reached; and secondly, and more important, read to understand and analyse your cases. To this line of work we should direct the attention of the student before he leaves the medical school, pointing in specific cases just where the best articles are to be found, sending him to the Index Catalogue—that marvellous storehouse, every page of which is interesting and the very titles instructive. Early learn to appreciate the differences between the descriptions of disease and the manifestations of that disease in an individual—the difference between the composite portrait and one of the component pictures. By exercise of a little judgement you can collect at moderate cost a good working library. Try, in the waiting years, to get a clear idea of the history of medicine. Read Foster's *Lectures on the History of Physiology*, Baas's *History of Medicine*. Get the

The Index Catalogue.

The working library.

History of medicine.

'Masters of Medicine' Series, and subscribe to the *Library and Historical Journal.*

Have an avocation.

Every day do some reading or work apart from your profession. I fully realize, no one more so, how absorbing is the profession of medicine, how applicable to it is what Michelangelo says, 'There are sciences which demand the whole of a man, without leaving the least portion of his spirit free for other distractions'; but you will be a better man and not a worse practitioner for an avocation.[45]

◆

Value of autopsies.

In this dry-bread period he should see autopsies daily, if possible. Successful knowledge of the infinite variations of disease can only be obtained by a prolonged study of morbid anatomy. While of special value in training the physician in diagnosis, it also enables him to correct his mistakes, and, if he reads his lesson aright, it may serve to keep him humble.[6]

◆

Publication.

Too many 'quiz' classes or too much journal work has ruined many a promising clinical physician. While the Pythagorean silence of nearly seven years, which the great Louis followed (and broke to burst into a full-blown reputation), cannot be enjoined, the young physician should be careful what and how he writes. Let him take heed to his education, and his education will take care of itself, and in a development under the guidance of seniors he will find plenty of material for papers before medical societies and for publication in scientific journals.[6]

Studiousness may be a stumbling-block.

Curiously enough, the student-practitioner may find studiousness a stumbling-block in his career. A bookish man may never succeed; deep-versed in books, he may not be able to use his knowledge to practical effect; or, more likely, his failure is not because he has studied books much, but because he has not studied men more. He has never got over that shyness, that diffidence, against which I have warned you. I have known instances in which this malady has been incurable; in others I have known a cure effected not by the public, but by the man's professional brethren, who, appreciating his worth, have insisted upon utilizing his mental treasures.[45]

Study men.

◆

The student in a large city; his difficulties, and how he may overcome them.

It is very hard to carry student habits into a large city practice; only zeal, a fiery passion, keeps the flame alive, smothered as it is so apt to be by the dust and ashes of the daily routine. A man may be a good student who reads only the book of nature. Such a one I remember in the early days of my residence in Montreal—a man whose devotion to patients and whose kindness and skill quickly brought him an enormous practice. Reading in his carriage and by lamplight at Lucina's bedside, he was able to keep well informed; but he had an insatiable desire to know the true inwardness of a disease, and it was in this way I came into contact with him. Hard pushed day and night, yet he was never too busy to spend a couple of hours with me searching for data which had not been forthcoming

John Bell.

during life, or helping to unravel the mysteries of a new disease.[45]

❦

Quinquennial brain-dusting an essential.

The third essential for the practitioner as a student is the quinquennial brain-dusting, and this will often seem to him the hardest task to carry out. Every fifth year, back to the hospital, back to the laboratory, for renovation, rehabilitation, rejuvenation, reintegration, resuscitation, &c. Do not forget to take the notebooks with you, or the sheets, in three separate bundles, to work over. From the very start begin to save for the trip. Deny yourself all luxuries for it. . . . Hearken not to the voice of old 'Dr. Hayseed,' who tells you it will ruin your prospects, and that he 'never heard of such a thing' as a young man, not yet five years in practice, taking three months' holiday. To him it seems preposterous. Watch him wince when you say it is a speculation in the only gold mine in which the physician should invest—*Grey Cortex!* What about the wife and babies, if you have them? Leave them! Heavy as are your responsibilities to those nearest and dearest, they are outweighed by the heavier responsibilities to yourself, to the profession, and to the public. Like Isaphaena, the story of whose husband—ardent, earnest soul, peace to his ashes!—I have told in the little sketch of *An Alabama Student*, your wife will be glad to bear her share in the sacrifice you make.[45]

❦

The end of the second lustrum.

With good health and good habits the end of the second lustrum should find you thoroughly established—all three rooms well furnished, a good stable, a good garden, no mining stock, but a life insurance, and, perhaps, a mortgage or two on neighbouring farms. Year by year you have dealt honestly with yourself; you have put faithfully the notes of each case into their proper places, and you will be gratified to find that, though the doubtful cases and mistakes still make a rather formidable pile, it has grown relatively smaller. You literally 'own' the country-side, as the expression is. All the serious and dubious cases come to you, and you have been so honest in the frank acknowledgement of your own mistakes, and so charitable in the contemplation of theirs, that neighbouring doctors, old and young, are glad to seek your advice. The work, which has been very heavy, is now lightened by a good assistant, one of your own students, who becomes in a year or so your partner.[45]

◆

The highest ambition—the cultivated general practitioner.

. . . The cultivated general practitioner. May this be the destiny of a large majority of you! Have no higher ambition! You cannot reach any better position in a community; the family doctor is the man behind the gun, who does our effective work. That his life is hard and exacting; that he is underpaid and overworked; that he has but little time for study and less for recreation—these are the blows that may give finer temper to his steel, and bring out the nobler elements in his character.[45]

◆

Specialism.

At the outset I would like to emphasize the fact that the student of internal medicine cannot be a specialist. The manifestations of almost any one of the important diseases in the course of a few years will 'box the compass' of the specialities.[6]

◆

The pluralist.

By all means, if possible, let him (the young physician) be a pluralist, and—as he values his future life—let him not get early entangled in the meshes of specialism.[6]

◆

There are three lines of work which he (the young physician) may follow, all of the most intense interest, all of the greatest value to him—chemistry, physiology, and morbid anatomy.[6]

◆

The specialist.

'That which has been is that which shall be.'

Medicine may be said to have begun with specialists. The Ebers papyrus is largely taken up with the consideration of local diseases, and centuries later we find in Greece certain individuals treating special ailments; and Aristophanes satirizes a 'rectum specialist' in a way not unlike our comic journals would 'poke fun' at an oculist or an aurist. The tail of our emblematic snake has returned into its mouth; at no age has specialism been so rife.[43]

◆

Dangers of adopting a speciality too early.

A serious danger is the attempt to manufacture rapidly a highly complex structure from ill-seasoned material. The speedy success which often comes from the cultivation of a speciality is a strong incentive to young men to adopt early a particular line of work. How frequently are we consulted by sucklings in our ranks as to the most likely branch in which to succeed, or a student, with the brazen assurance which only ignorance can give, announces that he intends to be a gynaecologist or an oculist. No more dangerous members of our profession exist than those born into it, so to speak, as specialists. Without any broad foundation in physiology or pathology, and ignorant of the great processes of disease, no amount of technical skill can hide from the keen eyes of colleagues defects which too often require the arts of the charlatan to screen from the public. [43]

◆

Specialism.

The restriction of the energies of trained students to narrow fields in science, while not without its faults, has been the most important single factor in the remarkable expansion of our knowledge. Against the disadvantages in a loss of breadth and harmony there is the compensatory benefit of a greater accuracy in the application of knowledge in specialism, as is well illustrated in the cultivation of special branches of practice. [5]

◆

Dentistry, ophthalmology, and gynaecology are branches which have been brought to a state of comparative perfection, and very largely by the labours of American physicians. [5]

◆

Advantages of specialism.

The advantages to the profession which followed this differentiation have nowhere been more striking than in this country, and the earnest workers in ophthalmology, gynaecology, dermatology, and other branches have contributed largely to inculcate the idea of thoroughness, the necessity for which is apt to be lost sight of in the hurry and bustle incident to the growth of a nation. Better work is done all along the line: a shallow diffuseness has given place to the clearness and definiteness which comes from accurate study in a limited field. The day has gone by for Admirable Crichtons, and although we have a few notable illustrations in our ranks of men who have become distinguished authorities in eye and skin diseases, and upon syphilis, without sacrificing their interests in general surgery, such are necessarily rare, and, unfortunately, from the very circumstances of the case, likely to become more uncommon. Then how comforting to the general practitioner is the wise counsel of the specialist. We take him a case that has puzzled and annoyed us, the diagnosis of which is uncertain, and we consult in vain the unwritten records of our experience and the printed records of our books. He labels it in a few minutes as a coleopterist would a beetle, and we feel grateful for the accuracy of his information, and happy in the possession of the label. And if sometimes (standing like Aaron between life and death) he illumines too brightly the darkness of our ignorance, are we not as often beholden to him for gentle dealing?[43]

◆

The public and specialism.

It is almost unnecessary to remark that the public, in which we live and move, has not been slow to recognize the advantage of a division of labour in the field of medicine. The desire for expert knowledge is, however, now so general that there is a grave danger lest the family doctor should become, in some places, a relic of the past. It must, indeed, be a comfort to thousands to feel that in the serious emergencies of life expert skill is now so freely available.[43]

❧

The gynaecologist.

Perhaps, as specialists, no class in our profession has been more roundly abused for meddlesome work than the gynaecologists, and yet what shall not be forgiven to the men who, as a direct outcome of the very operative details which have received the bitterest criticism, have learned to recognize tubal gestation, and are to-day saving lives which otherwise would inevitably have been lost? In one year at the Philadelphia Pathological Society, Formad has shown ten or twelve examples of ruptured tubal pregnancy obtained in medico-legal work (sudden deaths) in that city. The benefits which the public reap from specialism may be gathered from the fact that in a not much longer period of time I have seen seven specimens of tubal gestation, not removed by the pathologist, but by the gynaecologist, with the saving of five lives. The conservatism, which branded ovariotomists as butchers and belly-rippers, is not yet dead among us, and I say it frankly, to our shame, that it has not always been professional encouragement, which has supported the daring advances on special lines. Humanity owes a great debt of gratitude to the devoted men who have striven during the past half-century for exactness in knowledge, and for its practical application in all departments, a debt too great to pay, too great, one sometimes feels, even to acknowledge.[43]

◆

The specialist; his dangers,

Next to the danger from small men is the serious risk of the loss of perspective in prolonged and concentrated effort in a narrow field. Against this there is but one safeguard—the cultivation of the sciences upon which the speciality is based. The student-specialist may have a wide vision—no student wider—if he gets away from the mechanical side of the art, and keeps in touch with the physiology and pathology upon which his art depends. More than any of us, he needs the lessons of the laboratory, and wide contact with men in other departments may serve to correct the inevitable tendency to a narrow and perverted vision, in which the life of the ant-hill is mistaken for the world at large.[45]

and how he may avoid them.

◆

Dangers of specialism.

Specialism is not, however, without many disadvantages. A radical error at the outset is the failure to recognize that the results of specialized observation are at best only partial truths, which require to be correlated with facts obtained by wider study. The various organs, the diseases of which are subdivided for treatment, are not isolated, but complex parts of a complex whole, and every day's experience brings home the truth of the saying, 'When one member suffers all the members suffer with it.' Plato must have discussed this very question with his bright friends in the profession—

Eryximachus, perhaps—or he never could have put the following words in the mouth of Socrates:—

> 'I dare say that you may have heard eminent physicians say to a patient who comes to them with bad eyes, that they cannot cure the eyes by themselves, but that if his eyes are to be cured, his head must be treated: and then again they say that to think of curing the head alone and not the rest of the body also, is the height of folly. And arguing in this way they apply their methods to the whole body, and try to treat and heal the whole and the part together. Did you ever observe that this is what they say?'*

A sentence which embodies the law and the gospel for specialists. [43]

⁂

The narrow and pedantic specialists.

In the cultivation of a speciality as an art there is a tendency to develop a narrow and pedantic spirit; and the man who, year in and year out, examines eyes, palpates ovaries, or tunnels urethrae, without regard to the wider influences upon which his art rests, is apt, insensibly perhaps, but none the less surely, to acquire the attitude of mind of the old Scotch shoemaker, who, in response to the Dominie's suggestions about the weightier matters of life, asked, 'D'ye ken leather?' [43]

⁂

Advantages of study of physiology and pathology to the specialist.

Problems in physiology and pathology touch at every point the commonest affections; and exercised in these, if only in the early years of professional life, the man is chastened, so to speak, and can never, even in the daily round of the most exacting practice, degenerate into a money-making machine. And let the younger of my hearers lay this to heart: scan the lives of say twenty of the men most prominent in special lines of medicine and surgery to-day in this country, and you will find, with scarcely an exception, the early years devoted to anatomical, physiological, or pathological studies. They rose high because the foundations were deep. The most distinguished oculists have been men trained in physiology and pathology; and some, like Sir William Bowman, have had reputations so pre-eminent in several departments that the identity of the physiologist has been lost in the ophthalmologist.[43]

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* *Charmides*: Jowett's translation.

❦

Education and the specialist.

Very little additional knowledge enables the general practitioner to grapple with a large proportion of the cases which in cities come under the care of the specialist. The question resolves itself into one of education. It is impossible in three sessions to bring men beyond the superficial routine, but in a more prolonged course—as I know from experience—the student can be taught practically, in the wards and dispensaries, enough of the technique of the specialist to give, at least, a foundation upon which to work. He should leave the schools knowing the practical application of the microscope, the ophthalmoscope, and the laryngoscope, and in these and other lines he should have proceeded to the stage in which he recognizes the limitations of his knowledge. Such a man, in general practice, should know a 'choked disk'; the examination for tube-casts should be a familiar, everyday task; and he should be able to tell whether a vocal chord was paralysed. A serious obstacle to this happy consummation—which can be reached in a well-ordered system of education—is the absence, in the early years of practice, of material upon which to freshen the memory and to 'keep the hand in'; but the man who, as a student, has reached a certain point always retains some measure of the old facility. The post-graduate schools have done much to enable men to revive, and to acquire, technical skill, and have been of great service in generalizing special knowledge. In the practice of a good, all-round man, the number of cases demanding the help of a specialist is, after all, not great. The ordinary run of nervous disorders should be recognized; adenoid vegetations he would treat with the skill of a laryngologist; he would know enough not to tinker with a case of glaucoma; and though he might not diagnose a pus-tube from tubal gestation, he would (in this as in other details) have learned to know his limits and be ready to seek further advice.[43]

❧

The specialist and societies.

The organization of societies for the study of particular diseases has been of late a very notable feature in the professional life of this country. Since the foundation of the Ophthalmological Society more than a dozen associations have been formed, and their union in a triennial congress has proved a remarkable success. These societies stimulate work, promote good fellowship, and aid materially in maintaining the standard of professional scholarship. They are nearly all exclusive bodies, limited in membership, and demanding for admission evidence of special fitness. This point is sometimes urged against them; but the members exercise no arbitrary privilege in asking of candidates familiarity with the subject, and evidence of ability to contribute to the general store of knowledge. In some of the specialities these societies have been particularly useful in disciplining men who have traduced, not the code, but the unwritten traditions of our craft, acting as if they were venders of wares to be hawked in the market-place.[43]

◆

Diagnosis, not drugging.

In the fight which we have to wage incessantly against ignorance and quackery among the masses, and follies of all sorts among the classes, diagnosis, not drugging, is our chief weapon of offence. Lack of systematic personal training in the methods of the recognition of disease leads to the misapplication of remedies, to long courses of treatment when treatment is useless, and so directly to that lack of confidence in our methods which is apt to place us in the eyes of the public on a level with empirics and quacks.[23]

◆

New school of medicine.

The nineteenth century has witnessed a revolution in the treatment of disease, and a growth of a new school of medicine. The old schools—regular and homoeopathic—put their trust in drugs, to give which was the alpha and omega of their practice.

For every symptom there were a score or more of medicines—vile, nauseous compounds in one case; bland, harmless dilutions in the other. The characteristic of the new school is firm faith in a few good, well-tried drugs, little or none in the great mass of medicines still in general use.[5]

❧

Imperative drugging—the ordering of medicine in any and every malady—is no longer regarded as the chief function of the doctor.[5]

❧

The battle against polypharmacy, or the use of a large number of drugs (of the action of which we know little, yet we put them into bodies of the action of which we know less), has not been brought to a finish.[5]

❧

One of the most striking characteristics of the modern treatment of disease is the return to what used to be called the natural methods—diet, exercise, bathing, and massage. There probably never has been a period in the history of the profession when the value of diet in the prevention and the cure of disease was more fully recognized.[5]

❧

Facts.

All this change (from empiricism to science) has come about by the observation of facts, by their classification, and by the founding upon them of general laws.[22]

❧

Emulating the persistence and care of Darwin, we must collect facts with open-minded watchful-ness, unbiased by crotchets or notions; fact on fact, instance on instance, experiment on experiment; facts which fitly jointed together by some master who grasps the idea of their relationship, may establish a general principle.[22]

◆

The home laboratory.

A room fitted as a small laboratory, with the necessary chemicals and a microscope, will prove a better investment in the long run than a static machine or a new-fangled air-pressure spray apparatus.[16]

◆

Man's immutability,

The history of the race is a grim record of passions and ambitions, of weaknesses and vanities, a record, too often, of barbaric inhumanity; and even to-day, when philosophers would have us believe man's thoughts had widened, he is ready as of old to shut the gates of mercy, and to let loose the dogs of war.[14]

◆

and his mutability.

Our study is man, as the subject of accidents or diseases. Were he always, inside and outside, cast in the same mould, instead of differing from his fellow man as much in constitution and in his reaction to stimulus as in feature, we should ere this have reached some settled principles in our art.[22]

◆

And not only are the reactions themselves variable, but we, the doctors, are so fallible, ever beset with the common and fatal facility of reaching conclusions from superficial observations, and constantly misled by the ease with which our minds fall into the rut of one or two experiences.[22]

◆

The clergy and physic.

I suppose, as a body, clergymen are better educated than any other, yet they are notorious supporters of all the nostrums and humbuggery with which the daily and religious papers abound; and I find that the further away they have wandered from the decrees of the Council of Trent, the more apt are they to be steeped in thaumaturgic and Galenical superstition.[25]

◆

Man—a medicine-taking animal.

But know also, man has an inborn craving for medicine. Heroic dosing for several generations has given his tissues a thirst for drugs. As I once before remarked, the desire to take medicine is one feature which distinguishes man, the animal, from his fellow creatures. It is really one of the most serious difficulties with which we have to contend. Even in minor ailments, which would yield to dieting or to simple home remedies, the doctor's visit is not thought to be complete without the prescription.[25]

◆

Pills and potions.

And now that the pharmacists have cloaked even the most nauseous remedies, the temptation is to use medicine on every occasion; and I fear that we may return to the state of polypharmacy, the emancipation from which has been the sole gift of Hahnemann and his followers to the race. As the public becomes more enlightened, and as we get more sense, dosing will be recognized as a very minor function in the practice of medicine in comparison with the old measures of Asclepiades.[25]

◆

The practitioner's foes—the borderland pharmaceutical houses.

It may keep the practitioner out of the clutches of the arch-enemy of his professional independence—the pernicious literature of our camp-followers, a literature increasing in bulk, in meretricious attractiveness, and in impudent audacity. To modern pharmacy we owe much, and to pharmaceutical methods we shall owe much more in the future, but the profession has no more insidious foe than the large borderland pharmaceutical houses. No longer an honoured messmate, pharmacy in this form threatens to become a huge parasite, eating the vitals of the body medical. We all know too well the bastard literature which floods the mail, every page of which illustrates the truth of the axiom, the greater the ignorance the greater the dogmatism. Much of it is advertisements of nostrums foisted on the profession by men who trade on the innocent credulity of the regular physician, quite as much as any quack preys on the gullible public. Even the most respectable houses are not free from this sin of arrogance and of ignorant dogmatism in their literature. A still more dangerous enemy to the mental virility of the general practitioner is the 'drummer' of the drug-house. While many of them are good, sensible fellows, there are others, voluble as Cassio, impudent as Autolycus, and senseless as Caliban, who will tell you glibly of the virtues of the extract of the coccygeal gland in promoting pineal metabolism, and ready to express the most emphatic opinions on questions about which the greatest masters of our art are doubtful. No class of men with which we have to deal illustrates more fully the greatest of ignorance, which is the conceit that a man knows what he does not know.[23]

❧

Pseudo-science.

I am often asked—Why have you not tried the W—— treatment? As well ask why do I not use Bishop Berkeley's Tar-water. Any intelligent physician who reads Dr. W——'s articles in the journals, or as they have been collected in his book, must be impressed—first, with the crude, unscientific character of his work, and of the ignorance everywhere displayed of the nature of typhoid fever; and, secondly, with the persistent vaunting of a specific or cure-all. Dr. W—— is a devoted, earnest man, who honestly believes in his plan—so did Bishop Berkeley in his—but until the presentation has been made in a different way, I can no more accept his statements than those of any other misguided enthusiast who has been fortunate enough to have his wares exploited in the profession by a drug-house of repute. That any firm should have lent their name to this 'treatment,' that they should have spread broadcast in the profession its literature, may have been good business policy, but displays a sad lack of judgement. On such a question it is much easier to keep silence than to speak one's mind frankly in what may appear an ungracious, unkindly way; but I am quite ready to express this opinion in public, since I have had so often to do it in private, in response to scores of letters from physicians in different parts of the country. To one who appreciates what those great masters, Nathan Smith, James Jackson, W. W. Gerhard, Elisha Bartlett, and Austin Flint, did in this country for the elucidation of typhoid fever, the book itself issued by Dr. W—— is a reflection on the memory of men whose works and ways are alike our standard and our pride. [29]

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The danger of the busy life.

Now, while nothing disturbs our mental placidity more sadly than straitened means, and the lack of those things after which the Gentiles seek, I would warn you against the trials of the day soon to come to some of you—the day of large and successful practice. . . . Engrossed late and soon in professional cares, getting and spending, you may so lay waste your powers that you may find, too late, with hearts given away, that there is no place in your habit-stricken souls for those gentler influences which make life worth living. [20]

❧

The busy doctor.

Greater sympathy must be felt for the man who has started all right and has worked hard at the societies, but as the rolling years have brought ever-increasing demands on his time, the evening hours find him worn out, yet not able to rest, much less to snatch a little diversion or instruction in the company of his fellows whom he loves so well. Of all men in the profession the forty-visit-a-day man is the most to be pitied. Not always an automaton, he may sometimes by economy of words and extraordinary energy do his work well, but too often he is the one above all others who needs the refreshment of mind and recreation that is to be had in a well-conducted society. Too often he is lost beyond all recall, and, like Ephraim joined to his idols, we may leave him alone. Many good men are ruined by success in practice, and need to pray the prayer of the Litany against the evils of prosperity. It is only too true, as you know well, that a most successful—as the term goes—doctor may practise with a clinical slovenliness that makes it impossible for that kind old friend, Dame Nature, to cover his mistakes. A well-conducted society may be of the greatest help in stimulating the practitioner to keep up habits of scientific study. It seems a shocking thing to say, but you all know it to be a fact, that many, very many, men in large practice never use a stethoscope, and as for a microscope, they have long forgotten what a leucocyte or a tube-cast looks like. This in some cases may be fortunate, as imperfect or half-knowledge may only lead to mistakes, but the secret of this neglect of means of incalculable help is the fact that he has not attained the full and enduring knowledge which should have been given to him in the medical school. It is astonishing with how little outside aid a large practice may be conducted, but it is not astonishing that in it cruel and unpardonable mistakes are made. At whose door so often lies the responsibility for death in cases of empyema but at that of the busy doctor, who has not time to make routine examinations, or who is 'so driven' that the urine of his scarlet fever or puerperal patients is not examined until the storm has broken?[16]

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The general practitioner:

The peril is that should he (the physician) cease to think for himself he becomes a mere automaton, doing a penny-in-the-slot business which places him on a level with the chemist's clerk who can hand out specifics for every ill, from the 'pip' to the pox.[23]

❧

the best product of our profession.

With an optimistic temperament and a good digestion he is the very best product of our profession, and may do more to stop quackery and humbuggery, inside and outside of the ranks, than could a dozen prosecuting county attorneys. Nay more! such a doctor may be a daily benediction in the community—a strong, sensible, whole-souled man, living a life often of great self-denial, always of tender sympathy, worried neither by the vagaries of the well nor by the testy waywardness of the sick, and to him, if to any, may come (even when he knows it not) the true spiritual blessing—that 'blessing which maketh rich and addeth no sorrow.'

Dangers of prosperity.

The danger in such a man's life comes with prosperity. He is safe in the hard-working day, when he is climbing the hill, but once success is reached, with it come the temptations to which many succumb. Politics has been the ruin of many country doctors. . . . He is popular; he has a little

Politics.

money; and he, if anybody, can save the seat for the party. When the committee leaves you, take the offer under consideration, and if in the ten or twelve years you have kept on intimate terms with those friends of your student days, Montaigne and Plutarch, you will know what answer to return. If you live in a large town, resist the temptation to open a sanatorium. It is not the work for a general practitioner, and there are risks that you may sacrifice your independence and much else besides. And, thirdly, resist the temptation to move into a larger place. In a good agricultural district, or in a small town, if you handle your resources aright, taking good care of your education, of your habits, and of your money, and devoting part of your energies to the support of the societies, &c., you may reach a position in the community of which any man may be proud. There are country practitioners among my friends with whom I would rather change places than with any in our ranks, men whose stability of character and devotion to duty make one proud of the profession. As I have said before, have no higher ambition than to become an all-round family doctor, whose business in life is to know disease and to know how to treat it.[45]

Opening a sanatorium.

Moving to a larger place.

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Last year I was called to a town in Pennsylvania, and having to wait until late in the evening for the return train, I insisted, as is my wont, that the medical man should carry on his daily work and

The routinist.

allow me to help if possible. An afternoon round among people chiefly of the mechanic class, showed me a shrewd, cheery man, who in twenty years had gained the confidence and esteem of his patients. Kindly, hopeful words, very sensible advice about diet, and some half-dozen drugs seemed the essentials in his practice. In the evening I saw him dispose of a dozen patients at an outdoor dispensary rate; the examination was limited to the pulse, the tongue, and sometimes the throat. The dispensing, which was of the most primitive sort, was done at the table, on which stood four or five tins and paper boxes containing large quantities of calomel, soda, antipyrin, and Dover's powder. Other drugs, he said, were rarely necessary. He never used a stethoscope; he had no microscope or instruments of precision other than the thermometer. In reply to my questions he said that he rarely had to make an examination. 'If the patient has fever I send him to bed, if there is oedema I ask for the urine. Of course, I make many mistakes, and I sometimes get caught, but not oftener than the other fellows, and when I am in serious doubt I ask for a consultation.' This was a man of parts, a graduate from a good school, but early in his career he had become very busy, and gaining the confidence of the people, and having much confidence in himself, he had unconsciously got into a rut, out of which at forty only one thing could lift him—a prolonged course of additional study. This is by no means an exaggerated picture of a routinist in general practice. We all have our therapeutic ruts, and we all know consultants from whom patients find it very difficult to escape without their favourite prescription, no matter what the malady may be. Men of this stamp gain a certain measure of experience, and if of a practical turn of mind may become experts in mechanical procedures, but to experience in the true sense of the word they never attain. In reality they suffer from the all-prevailing vice of intellectual idleness. It is so much easier to do a penny-in-the-slot sort of practice, in which each symptom is at once met with its appropriate drug, than to make a careful examination and really to study the case systematically. Much depends upon a man's mental constitution, but much more on the sort of training he has had. If, when a student, good methods are not acquired, it is very hard to get into proper habits of work in practice.[2]

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The rationalist.

The rationalist, on the other hand, always approaches a patient as a mathematician does a problem. There is something to be found out; in each case, however trivial, there is something novel; and the problem of causation and the question of relief, while not perhaps of equal importance, are of equal interest. He may be just as busy as his careless brother, but he finds time to keep up a technical dexterity in the use of instruments of precision, and the stethoscope and the microscope are daily helps in diagnosis. These men are the delight of the consultant. To go into the country and find the diagnosis is made a case of mitral stenosis, a Friedrich's ataxia, a case of leukaemia, or one of myxoedema gives a man a thrill of pleasure such as Comte says he always felt when a student gave him an intelligent set of answers in an examination. It is this class of practitioners for whom the post-graduate courses are helpful and necessary. They alone feel the need of keeping abreast of the times, and men of this type will return every few years, finding that a few months' course of study not only improves and helps them personally, but is most beneficial in their practice. [2]

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Routine.

In institutions the corroding effect of routine can be withstood only by maintaining high ideals of work; but these become the sounding brass and tinkling cymbals without corresponding sound practice. [15]

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Experience and the general practitioner.

For the general practitioner a well-used library is one of the few correctives of the premature senility which is so apt to overtake him. Self-centred, self-taught, he leads a solitary life, and unless his everyday experience is controlled by careful reading, or by the attrition of a medical society, it soon ceases to be of the slightest value, and becomes a mere accretion of isolated facts, without correlation. [19]

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The man who does not read.

It is astonishing with how little reading a doctor can practise medicine, but it is not astonishing how badly he may do it. Not three months ago a physician living within an hour's ride of the Surgeon-General's Library brought to me his little girl aged twelve. The diagnosis of infantile myxoedema required only a half-glance. In placid contentment he had been practising twenty years in 'Sleepy Hollow,' and not even when his own flesh and blood was touched did he rouse from an apathy deep as Rip Van Winkle's sleep. In reply to questions: No, he had never seen anything in the journals about the thyroid gland; he had seen no pictures of cretinism or myxoedema; in fact, his mind was a blank on the whole subject. He had not been a reader, he said, but he was a practical man with very little time.[19]

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Ignorance, apathy, and vice.

Ignorance.

The physician, like the Christian, has three great foes—*ignorance*, which is sin; *apathy*, which is the world; and *vice*, which is the devil. There is a delightful Arabian proverb, two lines of which run: 'He who knows not, and knows not that he knows not, is a fool. Shun him. He who knows not, and knows that he knows not, is simple. Teach him.' To a large extent these two classes represent the people with whom we have to deal. Teaching the simple and suffering the fools gladly, we must fight the *wilful* ignorance of the one and the *helpless* ignorance of the other, not with the sword of righteous indignation, but with the skilful weapon of the tongue. On this ignorance the charlatan and the quack live, and it is by no means an easy matter to decide how best to conduct a warfare against these wily foes, the oldest and most formidable with whom we have to deal. As the incomparable Fuller remarks, 'Well did the poets feign Aesculapius and Circe brother and sister . . . for in all times (in the opinion of the multitude) witches, old women, and impostors have had a competition with doctors.' Education of the public of a much more systematic and active kind is needed.[41]

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Apathy our most dangerous foe.

By far the most dangerous foe we have to fight is *apathy*—indifference from whatever cause, not from a lack of knowledge, but from carelessness, from absorption in other pursuits, from a contempt bred of self-satisfaction. Fully twenty-five per cent. of the deaths in the community are due to this accursed apathy, fostering a human inefficiency, and going far to counterbalance the extraordinary achievements of the past century. Why should we take pride in the wonderful railway system with which enterprise and energy have traversed the land, when the supreme law, the public health, is neglected? What comfort in the thought of a people enjoying great material prosperity when we know that the primary elements of life (on which even the old Romans were our masters) are denied to them? What consolation does the 'little red school-house' afford when we know that a Lethean apathy allows toll to be taken of every class, from the little tots to the youths and maidens? Western civilization has been born of knowledge, of knowledge won by hard, honest sweat of body and brain, but in many of the most important relations of life we have failed to make that knowledge effective. And, strange irony of life, the lesson of human efficiency is being taught us by one of the little nations of the earth, which has so far bettered our instruction that we must again turn eastward for wisdom. Perhaps in a few years our civilization may be put on trial, and it will not be without benefit if it arouses the individual from apathy and makes him conscious of the great truth that only by earnest individual human effort can knowledge be made effective, and if it arouses communities from an apathy which permits mediaeval conditions to prevail without a protest.[41]

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Vice.

Against our third great foe—vice in all its forms—we have to wage an incessant warfare, which is not less vigorous because of the quiet, silent kind. Better than any one else the physician can say the word in season to the immoral, to the intemperate, to the uncharitable in word and deed. Personal impurity is the evil against which we can do most good, particularly to the young, by showing the possibility of the pure life and the dangers of immorality. Had I time, and were this the proper occasion, I would like to rouse the profession to a sense of its responsibility toward the social evil—the black plague which devastates the land. I can but call your attention to an important society, of which Dr. Prince Morrow of New York is the organizer, which has for one of its objects the education of the public on this important question. I would urge you to join in a crusade quite as important as that in which we are engaged against tuberculosis.[41]

To each one of you the practice of medicine will be very much as you make it—to one a worry, a care, a perpetual annoyance; to another, a daily joy and a life of as much happiness and usefulness as can well fall to the lot of man, because it is a life of self-sacrifice and of countless opportunities to comfort and help the weak-hearted, and to raise up those that fall. In the student spirit you can best fulfil the high mission of our noble calling—in his *humility*, conscious of weakness, while seeking strength; in his *confidence*, knowing the power while recognizing the limitations of his art; in his *pride* in the glorious heritage from which the greatest gifts to man have been derived; and in his sure and certain *hope* that the future holds for us still richer blessings than the past.[45]

Humility.

Confidence.

Just pride and hope.

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Mental independence.

In no single relation of life does the general practitioner show a more illiberal spirit than in the treatment of himself. I do not refer so much to careless habits of living, to lack of routine, or to failure to pay due attention to the business side of the profession—sins which so easily beset him—but I would speak of his failure to realize, first, the need of a lifelong progressive personal training; and secondly, the danger lest in the stress of practice he sacrifice the most precious of all possessions, his mental independence.[23]

❧

Self-satisfaction.

Self-satisfaction, a frame of mind widely diffused, is manifest often in greatest intensity where it should be least encouraged, and in individuals and communities is sometimes so active on such slender grounds that the condition is comparable to the delusions of grandeur in the insane.[26]

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Experience.

There are men who have never had the preliminary education which would enable them to grasp the fundamentals of the science on which medicine is based. Others have had poor teachers, and have never received that bent of mind which is the all-important factor in education; others again fall early into the error of thinking that they know it all, and benefiting neither by their mistakes nor by their successes, miss the very essence of all experience, and die bigger fools, if possible, than when they started.[25]

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Experience, in the true sense of the term, does not come to all with years, or with increasing opportunities. Growth in the acquisition of facts is not necessarily associated with development. Many grow through life as the crystal, by simple accretion, and at fifty possess, to vary the figure, the unicellular mental blastoderm with which they started.[26]

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Chauvinism in the practitioner.

Chauvinism in the unit, in the general practitioner, is of much more interest and importance. It is amusing to read and hear of the passing of the family physician. There never was a time in our history in which he was so much in evidence, in which he was so prosperous, in which his prospects were so good or his power in the community so potent. The public has even begun to get sentimental over him. He still does the work; the consultants and the specialists do the talking and the writing, and take the fees. By the work, I mean the great mass of routine practice which brings the doctor into every household in the land and makes him, not alone the adviser, but the valued friend. He is the standard by which we are measured. What he is, we are; and the estimate of the profession in the eyes of the public is their estimate of him. A well-trained, sensible doctor is one of the most valuable assets of a community, worth to-day, as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild.[23]

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The general practitioner.

The circumstances of life mould him (the family physician) into a masterful, self-confident, self-centred man, whose worst faults often partake of his best qualities.[23]

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The isolation of practice.

Few men live lives of more devoted self-sacrifice than the family physician, but he may become so completely absorbed in work that leisure is unknown; he has scarce time to eat or sleep, and, as Dr. Drummond remarks in one of his poems, 'He is the only man, I know me, don't get no holiday.' There is danger in this treadmill life lest he lose more than health and time and rest—his intellectual independence. More than most men he feels the tragedy of isolation—that inner isolation so well expressed in Matthew Arnold's line, 'We mortal millions live alone.'[23]

❦

The lonely road.

Even in populous districts the practice of medicine is a lonely road which winds uphill all the way, and a man may easily go astray and never reach the Delectable Mountains unless he early finds those shepherd guides of whom Bunyan tells, Knowledge, Experience, Watchful, and Sincere.[23]

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At times, and in degrees differing with our temperaments, there come upon us bouts of depression, when we feel that the battle has been lost, and that to fight longer is not worth the effort, periods when, amid the weariness, the fever, and the fret of daily practice, things have gone against us; we have been misunderstood by patients, our motives have been wrongly interpreted, and smitten perhaps in the house of our friends, the worries of heart, to which we doctors are so subject, make us feel bitterly the uncertainties of medicine as a profession, and at times make us despair of its future. In a voice that one may trust, Bartlett concludes his inquiry with these memorable words, which I quote, in the hope that they may soothe the heartache of any pessimistic brother:—

Words to soothe the heartache.

> 'There is no process which can reckon up the amount of good which the science and art of medicine have conferred upon the human race; there is no moral calculus that can grasp and comprehend the sum of their beneficent operations.

Ever since the first dawn of civilization and learning, through

> "The dark backward, and abysm of time,"

they have been the true and constant friends of the suffering sons and daughters of men. Through their ministers and disciples, they have cheered the desponding; they have lightened the load of human sorrow; they have dispelled or diminished the gloom of the sick-chamber; they have plucked from the pillow of pain its thorns, and made the hard couch soft with the poppies of delicious rest; they have let in the light of joy upon dark and desolate dwellings; they have rekindled the lamp of hope in the bosom of despair; they have called back the radiance of the lustreless eye and the bloom of the fading cheek; they have sent new vigour through the failing limbs; and, finally, when exhausted in all their other resources, and baffled in their skill—handmaids of philosophy and religion—they have blunted the arrows of death, and rendered less rugged and precipitous the inevitable pathway to the tomb. In the circle of human duties, I do not know of any, short of heroic and perilous daring, or religious martyrdom and self-sacrifice, higher and nobler than those of the physician. His daily round of labour is crowded with beneficence, and his nightly sleep is broken, that others may have better rest. His whole life is a blessed ministry of consolation and hope.'[42]

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Fate.

Alike in that you are men, and white, you are unlike in your features, very unlike in your minds and in your mental training, and your teachers will mourn the singular inequalities in your capacities. And so it is sad to think will be your careers; for one success, for another failure; one will tread the primrose path to the great bonfire, another the straight and narrow way to renown; some of the best of you will be stricken early on the road, and will join that noble band of youthful martyrs who loved not their lives to the death; others, perhaps the most brilliant among you, like my old friend and comrade, Dick Zimmerman (how he would have rejoiced to see this day!), the fates will overtake and whirl to destruction just as success seems assured. When the iniquity of oblivion has blindly scattered her poppy over us, some of you will be the trusted counsellors of this community, and the heads of departments of this faculty; while for the large majority of you, let us hope, is reserved the happiest and most useful lot given to man—to become vigorous, whole-souled, intelligent, general practitioners.[24]

❦

Success.

In a play of Oscar Wilde's one of the characters remarks, 'There are only two great tragedies in life, not getting what you want—and getting it!' and I have known consultants whose treadmill life illustrated the bitterness of this *mot*, and whose great success at sixty did not bring the success they had anticipated at forty. The mournful echo of the words of the preacher rings in their ears, words which I not long ago heard quoted with deep feeling by a distinguished physician: 'Better is an handful with quietness, than both the hands full with travail and vexation of spirit.'[6]

The consultant.

Poll the successful consulting physicians of this country to-day, and you will find that they have evolved either from general practice or from laboratory and clinical work; and many of the most prominent have risen from the ranks of general practitioners.[6]

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This is, of course, a very full programme, but in ten years a bright man, with what Sydenham calls 'the ancient and serious diligence of Hippocrates,' will pick up a very fair education, and will be fit to pass from the dispensary to the wards.[6]

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The consultant's second period.

Ten years' hard work tells with colleagues and friends in the profession, and with enlarged clinical faculties the physician enters upon the second, or bread-and-butter period. This, to most men, is the great trial, since the risks are greater, and many now drop out of the race, wearied at the length of the way, and drift into specialism or general practice.[6]

◆

The physician develops more slowly than the surgeon, and success comes later. There are surgeons at forty years in full practice and at the very top of the wave, a time at which the physician is only preparing to reap the harvest of years of patient toil. The surgeon must have hands, and better, young hands.[6]

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The consultant's

At the end of twenty years, when about forty-five, our Lydgate should have a first-class reputation in

brain is his capital.

the profession, and a large circle of friends and students. He will probably have precious little capital in the bank, but a very large accumulation of interest-bearing funds in his brain-pan. He has gathered a stock of special knowledge which his friends in the profession appreciate, and they begin to seek his counsel in doubtful cases, and gradually learn to lean upon him in times of trial. He may awake some day, perhaps quite suddenly, to find that twenty years of quiet work, done for the love of it, has a very solid value.[6]

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The consultant and the consultation;

In looking over my notes I find certain cases in which the visit has been of vital moment to the patient, usually in making a diagnosis, upon which successful treatment directly depended, as in myxoedema or pernicious anaemia. In a very much larger number there has been some important suggestion to make, either in prognosis or in the management of the case; while in others the chief value of the consultation has been in a reasonable talk with the patient about his condition, with assurance that there was nothing serious, and general advice as to mode of life and diet. Coleridge somewhere remarks that when a man is vaguely ill the talk of a doctor about the nature of his malady tones him down and consoles. It is very true, and to tone down and console are important functions of professional advisers.

his function.

There is a group of cases in which the physician seeks counsel on account of some special obscurity in the disease, an obscurity which may not be lightened by the consultant after the most careful scrutiny. Not to receive the positive information they seek is often a great disappointment to both doctor and patient, but we must remember that there are—changing slightly Sir Thomas Browne's phraseology—cases indissoluble in physic, and a diagnosis is not possible in every instance. Frankly to confess ignorance is often wiser than to beat about the bush with a hypothetical diagnosis.

The unpleasant features.

A consultant's life is not without unpleasant features, chief among which is the passing of judgement on the unhappy incurables—on the cancerous, ataxics, and paralytics, who wander from one city to another. Few are able to receive the balm of truth, but now and again one meets with a cheery, brave fellow, who insists upon a plain, unvarnished statement of his prospects. Still more distressing are the instances of hopeless illness in which, usually for the friends' sake, the entire 'faculty' is summoned. Is there anything more doleful than the procession of four or five doctors into a sick man's room? Who does not appreciate Matthew Arnold's wish—

'Nor bring to see me cease to live
Some doctor full of phrase and fame,
To shake his sapient head, and give
The ill he cannot cure a name'?

How often under such circumstances has the bitterness of the last line recurred to me! Oliver Wendell Holmes, in the *Memorial History of Boston*, speaking of two of the leading physicians of the early part of the century, says, 'I used often to hear him (Dr. Danforth) spoken of as being called in "consultation," as the extreme unction of the healing art is called. If "old Dr. Danfurt" or "old Dr. Jeffers" were seen entering a sick man's door it was very likely to mean nothing more nor less than a *nunc dimittis*.' 'Tis not pleasant to think that *pallida mors* so often treads upon our heels.

There is nothing new under the sun, and the common practice of friends who, wishing to leave nothing undone, call in a batch of consultants is by no means modern. In the delightful lectures on *Latin Poetry*, delivered in 1893 at the Johns Hopkins University, Professor Tyrrell, of Dublin, quoted a long passage from the *Satyricon* of Petronius. The friends were discussing poor Chrysanthus, who had just 'slipped his wind.' Seleucus says, 'And it is not as if he hadn't tried the fasting cure. For five days neither bit nor sup passed his lips, and yet he's gone. Too many doctors did for him, or else it was to be. A doctor's really no use except to feel you did the right thing.' The last sentence might have come from George Eliot or George Meredith.

Note-taking and time required.

The value of careful note-taking is recognized by most consultants. I know, however, several men in large practice who have discarded it as altogether too onerous, and as taking up much more time than it is worth. The material which an active consultant may collect in a long life is enormous. The late Austin Flint's notes cover 16,922 folio pages, all written with his own hand. The late Palmer Howard constantly lamented that the leisure never came in which he could work over the clinical records which he had so faithfully kept for so many years.

A case cannot be satisfactorily examined in less than half an hour, unless the notes have been taken previously by an assistant, a plan which consultants in very large practice might adopt more widely. A sick man likes to have plenty of time spent over him, and he gets no satisfaction in a hurried ten or twelve minutes' examination. If one never saw a patient the second time, notes might be superfluous, but can anything be more embarrassing in a return visit than to have forgotten name, face, malady, everything? At such a moment well-indexed notes are worth their weight in gold. Last year I had a notable illustration of the value of memoranda, however slight. Dr. Bray, of Chatham, brought a patient, whom from certain peculiarities I remembered at once, though nearly twelve years had elapsed since I had seen him. In 1883 he had, at Dr. Bray's suggestion, consulted me in Montreal. Fortunately I was able to lay my hands at once on the notes of the case. The point of interest in 1883 was whether the impotence was an early tabetic symptom, an opinion favoured by Dr. Jewell, of Chicago, and by a New York specialist whose name I do not remember. In the twelve years the patient's condition had remained unchanged, and many of the symptoms which he thought were of recent origin had been present at his first visit. Neither the patient nor Dr. Bray had any recollection of a previous consultation with me, of the truth of which only my notes convinced them.

The histories may be taken very conveniently on the cards of the Boston Library Bureau, and filed away alphabetically. I have had much comfort since the adoption of this plan. It is a great saving of time and labour to dictate the condition of the patient to a secretary, who can (if the arrangement of the consulting-rooms is not convenient) be secluded behind a screen. She can afterwards add the notes to the card on which the history has been taken.

Value of stenography.

For several years I have adopted the plan of dictating at odd times abstracts of the histories of special cases and filing them in order ready for publication. In this way, when noting carefully during the session of 1892–3 all the cases of abdominal tumour which came before me for diagnosis, I had, in October, 1893, when I began the series of lectures which have been published, all the cases type-written and ready. It has always been a regret to me that I had not learned stenography, which Sir William Gowers has found so serviceable, and the use of which in medical work he has advocated so warmly.[47]

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The consultant in smaller towns.

The environment of a large city is not essential to the growth of a good clinical physician. Even in small towns a man can, if he has it in him, become well versed in methods of work, and with the assistance of an occasional visit to some medical centre he can become an expert diagnostician and reach a position of dignity and worth in the community in which he lives.[6]

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I wish to plead particularly for the wasted opportunities in the smaller hospitals of our large cities, and in those of more moderate size. There are in this State a score or more of hospitals with from thirty to fifty medical beds, offering splendid material for good men on which to build reputations.[6]

CUPID AND MARRIAGE

'A young man married is a man that 's marred.'
(Shakespeare.)

'Nought beneath the sky
More sweet, more worthy is than firm consent
Of man and wife in household government.'
(*Odyssey*, Chapman's translation.)

Marriage.

So truly as a young man married is a young man marred is a woman unmarried, in a certain sense, a woman undone.[15]

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Hopeless passion.

To the worries of uncertain health and greatly embarrassed affairs there were added, in the summer of 1810, the pangs, one can hardly say of disprized, but certainly of hopeless love. Writing to his friend Reynolds, March 3, 1818, in comparing life to a large mansion of many apartments, Keats says pathetically that he could only describe two; the first, the Infant or Thoughtless Chamber, in which we remain as long as we do not think; and the second, the Chamber of Maiden-Thought, in which we first become intoxicated with the light and atmosphere, until it gradually darkens and we see not well the exit and we feel the 'burden of the mystery.' For his friends he hopes the third Chamber of Life may be filled with the wine of love and the bread of friendship. Poor fellow! Within a year the younger Aphrodite, in the shape of Fanny Brawne, beckoned to him from the door of the third chamber. Through her came no peace to his soul, and the Muses' inspiration was displaced by a passion which rocked him as the 'winds rock the ravens on high'—by Plato's fourth variety of madness, which brought him sorrow and 'leaden-eyed Despair.'[18]

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Emotions on ice.

How shall he (the young physician) live meanwhile? On crumbs—on pickings obtained from men in the cakes-and-ale stage (who always can put paying work into the hands of the young men), and on fees from some classes, journal work, private instruction, and from work in the schools. Any sort of medical practice should be taken, but with caution—too much of it early may prove a good man's ruin. He cannot expect to do more than just eke out a living. He must put his emotions on ice ; there must be no 'Amaryllis in the shade,' and he must beware the tangles of 'Neaera's hair.'[6]

◆

The two goddesses.

Another potent cause of worry is an idolatry by which many of you will be sore let and hindered. The mistress of your studies should be the heavenly Aphrodite, the motherless daughter of Uranus. Give her your whole heart, and she will be your protectress and friend. A jealous creature, brooking no second, if she finds you trifling and coquetting with her rival, the younger, earthly Aphrodite, daughter of Zeus and Dione, she will whistle you off and let you down the wind to be a prey, perhaps to the examiners, certainly to the worm Regret. In plainer language, put your affections in cold storage for a few years, and you will take them out ripened, perhaps a little mellow, but certainly less subject to those frequent changes which perplex so many young men. Only a grand passion, an all-absorbing devotion to the elder goddess, can save the man with a congenital tendency to philandering, the flighty Lydgate who sports with Celia and Dorothea, and upon whom the judgement ultimately falls in a basil-plant of a wife like Rosamond.[24]

WORK

THE MASTER-WORD

It seems a bounden duty on such an occasion to be honest and frank, so I propose to tell you the secret of life as I have seen the game played, and as I have tried to play it myself. You remember in one of the ***Jungle Stories*** that when Mowgli wished to be avenged on the villagers he could only get the help of Hathi and his sons by sending them the master-word. This I propose to give you in the hope, yes, in the full assurance, that some of you at least will lay hold upon it to your profit. Though a little one, the master-word looms large in meaning. It is the 'Open Sesame' to every portal, the great equalizer in the world, the true philosopher's stone which transmutes all the base metal of humanity into gold. The stupid man among you it will make bright, the bright man brilliant, and the brilliant student steady. With the magic word in your heart all things are possible, and without it all study is vanity and vexation. The miracles of life are with it; the blind see by touch, the deaf hear with eyes, the dumb speak with fingers. To the youth it brings hope, to the middle-aged confidence, to the aged repose. True balm of hurt minds, in its presence the heart of the sorrowful is lightened and consoled. It is directly responsible for all advances in medicine during the past twenty-five centuries. Laying hold upon it Hippocrates made observation and science the warp and woof of our art. Galen so read its meaning that fifteen centuries stopped thinking, and slept until awakened by the ***De Fabrica*** of Vesalius, which is the very incarnation of the master-word. With its inspiration Harvey gave an impulse to a larger circulation than he wot of, an impulse which we feel to-day. Hunter sounded all its heights and depths, and stands out in our history as one of the great exemplars of its virtue. With it Virchow smote the rock, and the waters of progress gushed out; while in the hands of Pasteur it proved a very talisman to open to us a new heaven in medicine and a new earth in surgery. Not only has it been the touchstone of progress, but it is the measure of success in everyday life. Not a man before you but is beholden to it for his position here, while he who addresses you has the honour directly in consequence of having had it graven on his heart when he was as you are to-day. And the master-word is WORK.[24]

A relish for work.

I was much interested the other day in reading a letter of John Locke to the Earl of Peterborough, who had consulted him about the education of his son. Locke insisted that the main point in education is to get 'a relish of knowledge. This is putting life into a pupil.' Get early this relish, this clear, keen enjoyance in work, with which languor disappears and all shadows of annoyance flee away. [13]

◆

Haste.

Fevered haste is not encouraged in military circles, and if you can adapt your intellectual progress to army rules, making each step in your mental promotion the lawful successor of some other, you will acquire little by little those staying powers without which no man is of much value in the ranks. [26]

◆

Ohne Hast, ohne Rast.

Success during the first ten years means endurance and perseverance; all things come to him who has learned to labour and to wait, who bides his time *ohne Hast*, *aber ohne Rast*, whose talent develops *in der Stille*, in the quiet fruitful years of unselfish work. [6]

◆

Live for the day.

As to the method of work, I have a single bit of advice, which I give with the earnest conviction of its paramount influence in any success which may have attended my efforts in life—*Take no thought for the morrow.* Live neither in the past nor in the future, but let each day's work absorb your entire energies, and satisfy your widest ambition.[13]

◆

The student who is worrying about his future, anxious over the examinations, doubting his fitness for the profession, is certain not to do so well as the man who cares for nothing but the matter in hand, and who knows not whither he is going.[13]

◆

The day's work.

Throw away, in the first place, all ambition beyond that of doing the day's work well.[26]

◆

The travellers on the road to success live in the present, heedless of taking thought for the morrow, having been able at some time, and in some form or other, to receive into their heart of hearts this maxim of the Sage of Chelsea: Your business is 'not to see what lies dimly at a distance, but to do what lies clearly at hand.'[26]

◆

Isolation.

Another aspect of the life of the army surgeon, isolation in some degree from professional colleagues, will influence you in different ways—hurtfully in the more dependent natures, helpfully in those who have learned that 'not from without us, only from within, comes, or can ever come, upon us light'—and to such the early years of separation from medical societies and gatherings will prove a useful seed-time for habits of study, and for the cultivation of the self-reliance that forms so important an element in the outfit of the practitioner.[26]

In the history of the profession there are grounds for the statement that isolation promoted originality. Some of the most brilliant work has been done by men in extremely limited spheres of action, and during the past hundred years it is surprising how many of the notable achievements have been made by physicians dwelling far from educational centres. Jenner worked out his discovery in a village; McDowell, Long, and Sims were country doctors; Koch was a district physician. [26]

◆

Industry essential at all ages.

He (Bassett) was very much impressed by the incessant industry of the French physicians. He says:—

'When I look at some of the medical men by whom I am surrounded, it makes me blush for shame; old men daily may be seen mixing their white locks with boys, and pursuing their profession with the ardour of youth. There is not a solitary great man in France that is idle, for if he were, that moment he would be outstripped; it is a race, and there are none so far ahead that they are not pressed by others; many are distanced, it is true, but there are none allowed to walk over the course. Witness Broussais, lecturing and labouring daily to sustain himself, after having elevated himself to the pinnacle; Lisfranc, an old bachelor with thousands, who after having made his daily visit and *leçon* for ten months for duty, during the vacation of two months he from choice gives a course of operations; and old Rollier may be seen daily supporting himself from bedpost to bedpost as jolly as if he were not far over sixty. Velpeau from a poor boy without money, time, education, or friends has by industry made himself one of the first surgeons in Europe.' [12]

Out-patient department; work in.

A few words in addition about this dry-bread decade. He should stick closely to the dispensaries. A first-class reputation may be built up in them. Byrom Bramwell's *Atlas of Medicine* largely represents his work while an assistant physician to the Royal Infirmary, Edinburgh. Many of the best-known men in London serve ten, fifteen, or even twenty years in the out-patient departments before getting wards. Lauder Brunton only obtained his full physicianship at St. Bartholomew's after a service of more than twenty years in the out-patient department.[6]

❧

The small field.

Faithfulness in the day of small things will insensibly widen your powers, correct your faculties; and, in moments of despondency, comfort may be derived from a knowledge that some of the best work of the profession has come from men whose clinical field was limited but well tilled.[26]

❧

The important thing is to make the lesson of each case tell on your education. The value of experience is not in seeing much, but in seeing wisely.[26]

❧

System.

How can you take the greatest possible advantage with the least possible strain? By cultivating system. I say cultivating advisedly, since some of you will find the acquisition of systematic habits very hard. There are minds congenitally systematic; others have a lifelong fight against an inherited tendency to diffuseness and carelessness in work. A few brilliant fellows have to dispense with it altogether, but they are a burden to their brethren and a sore trial to their intimates. I have heard it remarked that order is the badge of an ordinary mind. So it may be, but as practitioners of medicine we have to be thankful to get into that useful class. Let me entreat those of you who are here for the first time to lay to heart what I say on this matter. Forget all else, but take away this counsel of a man who has had to fight a hard battle, and not always a successful one, for the little order he has had in his life; take away with you a profound conviction of the value of system in your work. I appeal to the freshmen especially, because you to-day make a beginning, and your future career depends very much upon the habits you will form during this session. To follow the routine of the classes is easy enough, but to take routine into every part of your daily life is a hard task. Some of you will start out joyfully as did Christian and Hopeful, and for many days will journey safely towards the Delectable Mountains, dreaming of them, and not thinking of disaster until you find yourselves in the strong captivity of Doubt and under the grinding tyranny of Despair. You have been over-confident. Begin again more cautiously. No student escapes wholly from these perils and trials; be not disheartened, accept them. Let each hour of the day have its allotted duty, and cultivate that power of concentration which grows with its exercise, so that the attention neither flags nor wavers, but settles with a bull-dog tenacity on the subject before you. Constant repetition makes a good habit fit easily in your mind, and by the end of the session you may have gained that most precious of knowledge—the power to work. Do not under-estimate the difficulty you will have in wringing from your reluctant selves the stern determination to exact the uttermost minute on your schedule. Do not get too interested in one study at the expense of another, but so map out your day that due allowance is given to each. Only in this way can the average student get the best that he can out of his capacities. And it is worth all the pains and trouble he can possibly take for the ultimate gain, if he can reach his doctorate with system so ingrained that it has become an integral part of his being.[24]

◆

Ask of any active business man or a leader in a profession the secret which enables him to accomplish much work, and he will reply in one word, *system*; or as I shall term it, the *virtue of method*, the harness without which only the horses of genius travel.[22]

◆

There are two aspects of this subject; the first relates to the orderly arrangement of your work, which is to some extent enforced by the roster of demonstrations and lectures, but this you will do well to supplement in private study by a schedule in which each hour finds its allotted duty.[22]

◆

Thus faithfully followed day by day, system may become at last engrained in the most shiftless nature, and at the end of a semester a youth of moderate ability may find himself far in advance of the student who works spasmodically, and trusts to *cramming.*[22]

◆

The incessant and irregular demands upon a busy doctor make it (system) very difficult to retain, but the public in this matter can be educated, and the men who practise with system, allotting a definite time of the day to certain work, accomplish much more and have at any rate a little leisure; while those who are unmethodical never catch up with the day's duties and worry themselves, their *confrères*, and their patients.[22]

◆

The secret of successful working lies in the systematic arrangement of what you have to do, and in the methodical performance of it. With all of you this is possible, for few disturbing elements exist in the student's life to interrupt the allotted duty which each hour of the day should possess. Make out, each one for himself, a time-table, with the hours of lecture, study, and recreation, and follow closely and conscientiously the programme there indicated. I know of no better way to accomplish a large amount of work, and it saves the mental worry and anxiety which will surely haunt you if your tasks are done in an irregular and desultory way. With too many, unfortunately, working habits are not cultivated until the constraining dread of an approaching examination is felt, when the hopeless attempt is made to cram the work of two years into a six months' session with results only too evident to your examiners.[31]

❧

Routine; its value.

With Laurence Sterne, we can afford to pity such, since they know not that the barrenness of which they complain is within themselves, a result of a lack of appreciation of the meaning and method of work.[26]

❧

Let nothing slip by you; the ordinary humdrum cases of the morning routine have been accurately described and pictured, but study each one separately as though it were new—so it is, so far as your special experience goes; and if the spirit of the student is in you the lesson will be there.[26]

❧

Look at the cases not from the standpoint of textbooks and monographs, but as so many stepping-stones in the progress of your individual development in the art. This will save you from the pitiable mental attitude of the men who travel from Dan to Beer-sheba, and at every step cry out upon its desolation, its dreariness, and its monotony.[26]

❧

Dangers of work.

Has work no dangers connected with it? What of this bogie of overwork of which we hear so much? There are dangers, but they may readily be avoided with a little care. I can only mention two, one physical, one mental. The very best students are often not the strongest. Ill-health, the bridle of Theages, as Plato called it in the case of one of his friends whose mind had thriven at the expense of his body, may have been the diverting influence towards books or the profession. Among the good men who have studied with me there stands out in my remembrance many a young Lycidas, 'dead ere his prime,' sacrificed to carelessness in habits of living and neglect of ordinary sanitary laws. Medical students are much exposed to infection of all sorts, to combat which the body must be kept in first-class condition. Grossteste, the great Bishop of Lincoln, remarked that there were three things necessary for temporal salvation—food, sleep, and a cheerful disposition. Add to these suitable exercise and you have the means by which good health may be maintained. Not that health is to be a matter of perpetual solicitation, but habits which favour the *corpus sanum* foster the *mens sana*, in which the joy of living and the joy of working are blended in one harmony. Let me read you a quotation from old Burton, the great authority on *morbi eruditorum*:—

> 'There are many reasons why students dote more often than others. The first is their negligence; other men look to their tools; a painter will wash his pencils; a smith will look to his hammer, anvil, forge; a husbandman will mend his plough-irons, and grind his hatchet if it be dull; a falconer or huntsman will have an especial care of his hawks, hounds, horses, dogs, &c.; a musician will string and unstring his lute, &c.; only scholars neglect that instrument, their brain and spirits (I mean), which they daily use.[24]

Worry.

Much study is not only believed to be a weariness of the flesh, but also an active cause of ill-health of mind, in all grades and phases. I deny that work, legitimate work, has anything to do with this. It is that foul fiend Worry who is responsible for the majority of the cases. The more carefully one looks into the cause of the nervous breakdown in students, the less important is work *per se* as a factor. There are a few cases of genuine overwork, but they are not common. Of the causes of worry in the student life there are three of prime importance to which I may briefly refer.

An anticipatory attitude of mind, a perpetual forecasting, disturbs the even tenor of his way and leads to disaster. Years ago a sentence in one of Carlyle's essays made a lasting impression on me: 'Our duty is not to see what lies dimly at a distance, but to do what lies clearly at hand.' I have long maintained that the best motto for a student is, 'Take no thought for the morrow.' Let the day's work suffice; live for it, regardless of what the future has in store, believing that to-morrow should take thought for the things of itself. There is no such safeguard against the morbid apprehensions about the future, the dread of examinations and the doubt of ultimate success. Nor is there any risk that such an attitude may breed carelessness. On the contrary, the absorption in the duty of the hour is in itself the best guarantee of ultimate success. 'He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap,' which means that you cannot work profitably with your mind set upon the future. [24]

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Banish the future; live only for the hour and its allotted work. Think not of the amount to be accomplished, the difficulties to be overcome, or the end to be attained, but set earnestly at the little task at your elbow, letting that be sufficient for the day; for surely our plain duty is, 'Not to *see* what lies dimly at a distance, but to *do* what lies clearly at hand' (Carlyle). [31]

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Nemesis in the strenuous life.

In the worry and strain of modern life, arterial degeneration is not only very common, but occurs often at a relatively early age. For this the high pressure at which men live, and the habit of working the machine to its maximum capacity, are responsible, rather than excesses in eating and drinking, or than any special prevalence of syphilis. Angio-sclerosis, creeping on slowly but surely, 'with no pace perceived,' 'is the Nemesis through which Nature exacts retributive justice for the transgression of her laws—coming to one as an apoplexy, to another as an early Bright's disease, to a third as an aneurism, and to a fourth as angina pectoris; too often slitting 'the thin-spun life' in the fifth decade at the very time when success seems assured. Nowhere do we see such an element of tragic sadness as in many of these cases. A man who has early risen and late taken rest, who has eaten the bread of carefulness, striving for success in commercial, professional, or political life, after twenty-five or thirty years of incessant toil reaches the point where he can say, perhaps with just satisfaction, 'Soul, thou hast much goods laid up for many years, take thine ease,' all-unconscious that the fell sergeant has already issued the warrant. How true to life is Hawthorne in *The House of the Seven Gables*! To Judge Pyncheon, who had experienced a mere dimness of sight and a throbbing at the heart—nothing more—and in whose grasp was the meed for which he had 'fought, and toiled, and climbed, and crept';—to him, as he sat in the old oaken chair of his grandfathers, thinking of the crowning success of his life, so near at hand, the avenger came through the arteries.[28]

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Need of an avocation.

While medicine is to be your vocation or calling, see to it that you have also an avocation—some intellectual pastime which may serve to keep you in touch with the world of art, of science, or of letters. Begin at once the cultivation of some interest other than the purely professional. The difficulty is in a selection, and the choice will be different according to your tastes and training. No matter what it is, have an outside hobby. For the hard-working medical student it is easier perhaps to keep up an interest in literature. Let each subject in your year's work have a corresponding outside author. When tired of anatomy refresh your minds with Oliver Wendell Holmes; after a worrying subject in physiology, turn to the great idealists, to Shelley or to Keats, for consolation; when chemistry distresses your soul, seek peace in the great pacifier, Shakespeare; ten minutes with Montaigne will lighten the burden.[13]

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The man, not the doctor.

But do not get too deeply absorbed to the exclusion of all outside interests. Success in life depends as much upon the man as upon the physician. Mix with your fellow students, mingle with their sports and their pleasures. You are to be members of a polite as well as of a liberal profession, and the more you see of life outside the narrow circle of your work the better equipped will you be for the struggle. I often wish that the citizens in our large educational centres would take a little more interest in the social life of the students, many of whom catch but few glimpses of home life during their course.[13]

◆

Idleness.

By nature man is the incarnation of idleness, which quality alone, amid the ruined remnants of Edenic characters, remains in all its primitive intensity.[22]

◆

The philosophy of life.

For better or worse, there are few occupations of a more satisfying character than the practice of medicine, if a man can but once get *orientirt* and bring to it the philosophy of honest work, the philosophy that insists that we are here, not to get all we can out of life about us, but to see how much we can add to it. The discontent and grumblings which one hears have their source in the man more often than in his environment.[16]

Failure.

Occasionally a man of superlative merit is neglected, but it is because he lacks that most essential gift, the knowledge how to use his gifts. The failure in 99 per cent. of the cases is in the man himself; he has not started right, the poor chap has not had the choice of his parents, or his education has been faulty, or he has fallen away to the worship of strange gods, Baal or Ashtoreth, or worse still, Bacchus. But after all, the killing vice of the young doctor is laziness. He may have worked hard at college, but the years of probation have been his ruin. Without specific subjects upon which to work, he gets the newspaper or the novel habit, and fritters his energies upon useless literature. There is no greater test of a man's strength than to make him mark time in the 'stand and wait' years. Habits of systematic reading are rare, and are becoming more rare, and five or ten years from his licence, as practice begins to grow, may find the young doctor knowing less than he did when started, and without fixed educational purpose in life.[16]

MAN'S YEARS OF USEFULNESS AND HOW HE MAY PROLONG THEM

'Il y a beaucoup de vieillards à quarante ans et une infinité de jeunes à soixante.' (Laurens.)

Conservatism, not old fogeyism.

Conservatism and old fogeyism are totally different things; the motto of the one is, 'Prove all things, and hold fast that which is good,' and of the other, 'Prove nothing, but hold fast that which is old.' Do not suppose that you have here a monopoly of the article, which is a human, not a national, malady, for we see a very virulent type in America. In its illusiveness, and in the disastrous consequences which have often followed its hunting, old fogeyism is a sort of Snark in the medical profession. Before this Boojum, in the form of an entrenched variety, many good men and true have softly and silently vanished away like the 'beamish' nephew of the bellman, sacrificed to intellectual staleness in high places. One of the best correctives is the plan followed at Harvard, which asks every teacher to take the Sabbatical year, ensuring in this way rest of the mind, if not refreshment. To maintain mental freshness and plasticity requires incessant vigilance; too often, like the dial's hand, it steals from its figure with no pace perceived—except by one's friends, and they never refer to it. A deep and an enduring interest in the manifold problems of medicine, and a human interest in the affairs of our brotherhood; if these do not suffice nothing will.[2]

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The fossilized teacher.

After all, no men among us need refreshment and renovating more frequently than those who occupy positions in our schools of learning. Upon none does intellectual staleness more readily steal 'with velvet step, unheeded, softly,' but none the less relentlessly. Dogmatic to a greater or less degree all successful teaching must be, but year by year, unless watchful, this very dogmatism may react upon the teacher, who finds it so much easier to say to-day what he said last year. After a decade he may find it less trouble to draw on home supplies than to go into the open market for wares, perhaps not a whit better, but just a wee bit fresher. After twenty years the new, even when true, startles, too often repels; after thirty—well, he may be out of the race, still on the track perhaps, even running hard, but quite unconscious that the colts have long passed the winning-post. These unrefreshed, unregenerate teachers are often powerful instruments of harm, and time and again have spread the blight of blind conservatism in the profession. Safely enthroned in assured positions, men of strong and ardent convictions, with faithful friends and still more faithful students, they too often come within the scathing condemnation of the blind leaders of the blind, of those who would neither themselves enter into the possession of new knowledge nor suffer those who would to enter. The profession has suffered so sorely from this blight of old fogeyism that I may refer to the most glaring instance in our history. In the scientific annals of this great metropolis there is no occasion more memorable than April 16, 1616, when Harvey began his revolutionary teaching. Why the long, the more than Horatian delay, in publishing his great discovery? He knew his day and generation, and even after twelve years of demonstration, which should have disarmed all opposition, we know how coldly the discovery was received, particularly in certain quarters. Harvey, indeed, is reported to have said that he did not think any above forty years of age had accepted the new truth. Many of us have lived through and taken part in two other great struggles. The din of battle over the germ theory of disease still rings in our ears. Koch's brilliant demonstration of the tuberculosis bacillus had a hard uphill fight to recognition. The vested interests of many minds were naturally against it, and it was only the watchers among us, men like Austin Flint, who were awake when the dawn appeared. It is notorious that the great principles of antiseptic surgery have grown slowly to acceptance, and nowhere more slowly than in the country in which they were announced, the country which has the great honour to claim Lord Lister as a citizen. Old fogeyism of the most malignant type stood in the way, and in some places, strange to stay, still stands.[2]

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La crise de quarante ans.

As Locke says: 'Truth scarce ever yet carried it by vote anywhere at its first appearance,' and these well-known examples illustrate a law in human knowledge that a truth has to grow to acceptance with the generation in which it is announced. Progress is an outcome of a never-ending struggle of the third and fourth decades against the fifth, sixth, and seventh. Men above forty are rarely pioneers, rarely the creators in science or in literature. The work of the world has been done by men who had not reached *la* *crise de quarante ans.* And in our profession wipe out, with but few exceptions, the contributions of men above this age and we remain essentially as we are. Once across this line we teachers and consultants are in constant need of post-graduate study as an antidote against premature senility. Daily contact with the bright young minds of our associates and assistants, the mental friction of medical societies, and travel are important aids. Would you know the signs by which in man or institution you may recognize old fogeyism? There are three: first, a state of blissful happiness and contentment with things as they are; secondly, a supreme conviction that the condition of other people and other institutions is one of pitiable inferiority; and thirdly, a fear of change, which not alone perplexes but appals.[2]

❧

Three periods in the teacher's life.

The teacher's life should have three periods: study until twenty-five, investigation until forty, profession until sixty, at which age I would have him retired on a double allowance.[44]

❧

Presenility.

Insensibly, in the fifth and sixth decades, there begins to creep over most of us a change, noted physically among other ways in the silvering of the hair and the lessening of elasticity, which impels a man to open rather than to vault a five-barred gate.[22]

❧

Harvey complained in his day (1578–1657) that few men above this critical age (forty) seemed able to accept the doctrine of the circulation of the blood, and in our own time it is interesting to note how the theory of the bacterial origin of certain diseases has had, as other truths, to grow to acceptance with the generation in which it was announced. The only safeguard in the teacher against this lamentable condition is to live in, and with, the third decade, in company with the younger, more receptive and progressive minds.[22]

◆

When a man nor wax nor honey can bring home, he should, in the interests of an institution, be dissolved from the hive to give more labourers room; though it is not every teacher who will echo the sentiment—

'Let me not live . . .
After my flame lacks oil, to be the snuff
Of younger spirits whose apprehensive senses
All but new things disdain.'

As we travel farther from the East, our salvation lies in keeping our faces toward the rising sun, and in letting the fates drag us, like Cacus his oxen, backward into the cave of oblivion.[22]

◆

Walk with the young.

One thing may save him (from becoming useless in his advancing years). It was the wish of Walter Savage Landor always to walk with Epicurus on the right hand and Epictetus on the left; and I would urge the clinical physician, as he travels farther from the East, to look well to his companions—to see that they are not of his own age and generation. He must walk with the 'boys,' else he is lost, irrevocably lost; not all at once, but by easy grades, and every one perceives his ruin before he, 'good, easy man,' is aware of it. I would not have him a basil plant, to feed on the brains of the bright young men who follow the great wheel uphill, but to keep his mind receptive, plastic, and impressionable he must travel with the men who are doing the work of the world, the men between the ages of twenty-five and forty. [6]

◆

The calm, contemplative life.

After years of hard work, at the very time when a man's energies begin to flag, and when he feels the need of more leisure, the conditions and surroundings that have made him what he is and that have moulded his character and abilities into something useful in the community—these very circumstances ensure an ever-increasing demand upon them; and when the call of the East comes, which in one form or another is heard by all of us, and which grows louder as we grow older, the call may come like the summons to Elijah, and not alone the ploughing of the day, but the work of a life, friends, relatives, even father and mother, are left, to take up new work in a new field. Or, happier far, if the call comes, as it did to Puran Das in Kipling's story, not to new labours, but to a life 'private, unactive, calm, contemplative.' [44]

RELIGION, DEATH, AND IMMORTALITY

'Life is a pure flame, and we live by an invisible sun within us.'

'There is nothing strictly immortal, but immortality. Whatever hath no beginning, may be confident of no end' (all others have a dependent being and are within the reach of destruction); 'which is the peculiar of that necessary Essence that cannot destroy itself; and the highest strain of omnipotency, to be so powerfully constituted as not to suffer even from the power of itself.' (Sir Thomas Browne, *Hydriotaphia—Urn Burial.*)

Science and faith.

And thirdly, every one of you will have to face the ordeal of every student in this generation who sooner or later tries to mix the waters of science with the oil of faith. You can have a good deal of both if you only keep them separate. The worry comes from the attempt at mixture. As general practitioners you will need all the faith you can carry, and while it may not always be of the conventional pattern, when expressed in your lives rather than on your lips, the variety is not a bad one from the standpoint of St. James; and may help to counteract the common scandal alluded to in the celebrated diary of that gossipy old pastor-doctor, the Rev. John Ward: 'One told the Bishop of Gloucester that he imagined physicians of all other men the most competent judges of affairs of religion, and his reason was because they were wholly unconcerned with it.' [24]

❦

The pathos of early death.

All lovers of poetry cherish Keats's memory for the splendour of the verse with which he has enriched our literature. There is also that deep pathos in a life cut off in the promise of such rich fruit. He is numbered among 'the inheritors of unfulfilled renown,' with Catullus and Marlowe, with Chatterton and Shelley, whom we mourn as doubly dead in that they died so young. [18]

❦

Sudden death.

'With what strife and pains we come into the world we know not, but it is commonly no easy matter to get out of it,' Sir Thomas Browne says; and, having regard to the uncertainties of the last stage of all, the average man will be of Caesar's opinion, who, when questioned at his last dinner-party as to the most preferable mode of death, replied, 'That which is the most sudden.' Against this, one in a string of grievous calamities, we pray in the Litany, though De Quincey insists that the meaning here is 'unprepared.' In this sense sudden death is rare in angina pectoris, since the end comes but seldom in the first paroxysm. Terrible as are some of these incidental conditions accompanying coronary artery lesions, there is a sort of kindly compensation, as in no other local disease do we so often see the ideal death—death, like birth, 'a sleep and a forgetting.'[28]

◆

Matthew Arnold's wish.

Angina Pectoris Vera, Heredity. The best-known instance is that of the Arnold family. William Arnold, collector of customs of Cowes, died suddenly of spasm of the heart in 1801. His son, the celebrated Thomas Arnold, of Rugby, . . . died in his first attack. Matthew Arnold, his distinguished son, was a victim of the disease for several years, and died suddenly in an attack on Sunday, April 15, 1888, having been spared, as he hopes in his little poem called *A Wish*,—

'the whispering, crowded room,
The friends who come, and gape, and go;
The ceremonious air of gloom—
All, which makes death a hideous show!'[28]

◆

The physician and the problem.

Than the physician, no one has a better opportunity to study the attitude of mind of his fellow men on the problem. Others, perhaps, get nearer to John, taking no thought for the morrow, as he disports himself in the pride of life; but who gets so near to the real John as known to his Maker, to John in sickness and in sorrow, and sore perplexed as to the future? The physician's work lies on the confines of the shadow-land, and it might be expected that, if to any, to him would come glimpses that might make us less forlorn when in the bitterness of loss we cry:—

'Ah, Christ! that it were possible
For one short hour to see
The souls we loved, that they might tell us
What and where they be!'[32]

◆

'Clean forgotten, like the dead man out of mind.'

We habitually talk of the departed, not as though they had passed from death unto life and were in a state of conscious joy and felicity, or otherwise, but we count them out of our circle with set deliberation, and fix between them and us a gulf as deep as that which separated Dives from Lazarus. That sweet and gracious feeling of an ever-present immortality, so keenly appreciated in the religion of Numa, has no meaning for us. The dead are no longer immanent, and we have lost that sense of continuity which the Romans expressed so touchingly in their private festivals of the Ambarvalia, in which the dead were invoked and remembered. Even that golden cord of Catholic doctrine, the Communion of the Saints, so comforting to the faithful in all ages, is worn to a thread in our working-day world. Over our fathers immor-

Communion of Saints and the busy life.

tality brooded like the day; we have consciously thrust it out of lives so full and busy that we have no time to make an enduring covenant with our dead.[32]

❦

How man dies.

As a rule, man dies as he had lived, uninfluenced practically by the thought of a future life. Bunyan could not understand the quiet, easy death of Mr. Badman, and took it as an incontestable sign of his damnation. The ideal death of Cornelius, so beautifully described by Erasmus, is rarely seen. In our modern life the educated man dies usually as did Mr. Denner in Margaret Deland's story—wondering, but uncertain, generally unconscious and unconcerned. I have careful records of about five hundred death-beds, studied particularly with reference to the modes of death and the sensations of the dying. The latter alone concern us here. Ninety suffered bodily pain and distress of one sort or another, eleven showed mental apprehension, two positive terror, one expressed spiritual exaltation, one bitter remorse. The great majority gave no sign one way or the other; like their birth, their death was 'a sleep and a forgetting.' The Preacher was right: in this matter man hath no pre-eminence over the beast—'as the one dieth, so dieth the other.'[32]

❦

Science and the spirits.

The search of science for the spirits has been neither long nor earnest; nor is it a matter of surprise that it has not been undertaken earlier by men whose training had fitted them for the work.

It is no clear, vasty deep, but a muddy, Acheronian pool in which our modern spirits dwell, with Circe as the presiding deity and the Witch of En-dor as her high priestess. Commingling with the solemn incantations of the devotees who throng the banks, one can hear the mocking laughter of Puck and of Ariel, as they play among the sedges and sing the monotonous refrain, 'What fools these mortals be!' Sadly besmirched, and more fitted for a sojourn in Ancyra than in Athens, has been the condition of those who have returned from the quest, and we cannot wonder that scientific men have hesitated to stir the pool and risk a touch from Circe's wand. All the more honour to those who have with honest effort striven to pierce the veil and explore the mysteries which lie behind it.[32]

◆

The immortality of the flesh.

Science has put on an immortality of the flesh, and in a remarkable triumph of research has learned to recognize in every living being at once immortal age beside immortal youth. The patiently worked-out story of the morphological continuity of the germ-plasm is one of the fairy tales of science. You who listen to me to-day feel organized units in a generation with clear-cut features of its own, a chosen section of the finely woven fringe of life built on the coral reef of past generations,—and, perhaps, if any, you citizens of no mean city have a right to feel of some importance. The revelations of modern embryology are a terrible blow to this pride of descent. The individual is nothing more than the transient offshoot of a germ-plasm, which has an unbroken continuity from generation to generation, from age to age. This marvellous embryonic substance is eternally productive, eternally forming new individuals to grow up and to perish, while it remains in the progeny always youthful, always increasing, always the same. 'Thousands upon thousands of generations which have arisen in the course of ages were its products, but it lives on in the youngest generations with the power of giving origin to coming millions. The individual organism is transient, but its embryonic substance, which produces the mortal tissues, preserves itself, imperishable, everlasting, and constant.'[32]

❧

Value of a belief in immortality.

Though his philosophy finds nothing to support it, at least from the standpoint of Terence the scientific student should be ready to acknowledge the value of a belief in a hereafter as an asset in human life. In the presence of so many mysteries which have been unveiled, in the presence of so many yet unsolved, he cannot be dogmatic and deny the possibility of a future state; and however distressing such a negative attitude of mind to the Teresian, like Pyrrho, he will ask to be left, reserving his judgement, but still inquiring. He will recognize that amid the turbid ebb and flow of human misery, a belief in the resurrection of the dead and the life of the world to come is the rock of safety to which many of the noblest of his fellows have clung; he will gratefully accept the incalculable comfort of such a belief to those sorrowing for precious friends hid in death's dateless night; he will acknowledge with gratitude and reverence the service to humanity of the great souls who have departed this life in a sure and certain hope—but this is all. Whether across death's threshold we step from life to life, or whether we go whence we shall not return, even to the land of darkness, as darkness itself, he cannot tell.[32]

◆

Confessio fidei.

On the question before us wide and far your hearts will range from those early days when matins and evensong, evensong and matins, sang the larger hope of humanity into your young souls. In certain of you the changes and chances of the years ahead will reduce this to a vague sense of eternal continuity, with which, as Walter Pater says, none of us wholly part. In a very few it will be begotten again to the lively hope of the Teresians; while a majority will retain the sabbatical interest of the Laodicean, as little able to appreciate the fervid enthusiasm of the one as the cold philosophy of the other. Some of you will wander through all phases, to come at last, I trust, to the opinion of Cicero, who had rather be mistaken with Plato than be in the right with those who deny altogether the life after death; and this is my own *confessio fidei.*[32]

VARIA

Parting.

Of course upon a few the sense of personal loss falls heavily; the faculty of getting attached to those with whom we work is strongly developed in most of us, and some will realize the bitterness of the lines:—

> ‘Alas! that all we loved of him should be
> But for our grief as if it had not been.’[44]

◆

Common sense.

Common sense in matters medical is rare, and is usually in inverse ratio to the degree of education.[25]

◆

The future.

When schemes are laid in advance, it is surprising how often the circumstances fit in with them.[6]

◆

Delilah of the press.

In the life of every successful physician there comes the temptation to toy with the Delilah of the press, daily and otherwise. There are times when she may be courted with satisfaction, but beware! sooner or later she is sure to play the harlot, and has left many a man shorn of his strength, viz. the confidence of his professional brethren.[6]

◆

Equanimity.

One of the first essentials in securing a good-natured equanimity is not to expect too much of the people amongst whom you dwell.[20]

◆

Two views in life.

From two points alone have we a wide and satisfactory view of life—one, as amid the glorious tint of the early morn, ere the dew of youth has been brushed off, we stand at the foot of the hill, eager for the journey; the other, wider, perhaps less satisfactory, as we gaze from the summit at the lengthening shadows cast by the setting sun.

You remember in the ascent of the Mountain of Purgatory, Dante, after a difficult climb, reached a high terrace encircling the hill, and sitting down turned to the east, remarking to his conductor, 'All men are delighted to look back.' So on this occasion, from the terrace of a quarter of a century, I am delighted to look back, and to be able to tell you of the prospect.[13]

❧

The gospel of living.

The gospel of 'living' as against that of 'doing,' which Milton preached in the celebrated sonnet *On his Blindness*, found in Keats a warm advocate. 'Let us not, therefore,' he says, 'go hurrying about and collecting honey, bee-like buzzing here and there for a knowledge of what is not to be arrived at, but let us open our leaves like a flower, and be passive and receptive, budding patiently under the eye of Apollo, and taking truths from every noble insect that favours us with a visit.' Fatal to encourage in an active man of affairs, this dreamy state, this passive existence, favours in 'bards of passion and of mirth' the development of a fruitful mental attitude.[18]

❧

The dreamer.

The dreamer spins from his 'own inwards his own airy citadel'; and as the spider needs but few points of leaves and twigs from which to begin his airy circuit, so Keats says, 'man should be content with as few points to tip with the fine web of his soul, and weave a tapestry empyrean, full of symbols for his spiritual eye, of softness for his spiritual touch, of space for his wanderings, of distinctness for his luxury.'[18]

◆

Mind the measure of man.

Who has not known lives of the greatest freshness and nobility hampered at every turn and bound in chains the most commonplace and sordid, lives which illustrate the liberty and freedom enjoyed by minds innocent and quiet, in spite of stone walls and iron bars? On the other hand, scan the history of progress in the profession, and men the most liberal and narrow, reeking of the most pernicious type of chauvinism, have been among the teachers and practitioners in the large cities and great medical centres; so true is it, that the mind is its own place and in itself can make a man independent of his environment.[23]

◆

The credulous public.

'Knowledge comes, but wisdom lingers,' and in matters medical the ordinary citizen of to-day has not one whit more sense than the old Romans, whom Lucian scourged for a credulity which made them fall easy victims to the quacks of the time, such as the notorious Alexander, whose exploits make one wish that his advent had been delayed some eighteen centuries.[20]

◆

Curious, odd compounds are these fellow creatures, at whose mercy you will be; full of fads and eccentricities, of whims and fancies; but the more closely we study their little foibles of one sort and another in the inner life which we see, the more surely is the conviction borne in upon us of the likeness of their weaknesses to our own. [20]

❧

Deal gently then with this deliciously credulous old human nature in which we work, and restrain your indignation, when you find your pet parson has triturates of the hundredth potentiality in his waistcoat pocket, or you discover accidentally a case of Warner's Safe-Cure in the bedroom of your best patient. It must needs be that offences of this kind come; expect them, and do not be vexed. [20]

❧

Hence the need of an infinite patience and of an over-tender charity towards these fellow creatures; have they not to exercise the same toward us? [20]

❧

Inexorable Nature:

Sometimes from our desolation only does a better life begin. Surely the blood penalty has been paid in full for the gross neglect of sanitary laws. The wantonness of the sacrifice is so terrible, so inhuman. Nature is inexorable, and red in tooth and claw with ravin, knows nothing of our humanitarian care of the individual. But her sacrifice is never wanton. Careful of the type, careless of the single life, sacrifice is a law of being, a condition of existence. In one of his delightful lectures on the *Foundations of Zoology*, Professor Brooks tells us that of the countless millions of the king of fish which yearly enter the Columbia River seeking the breeding-grounds, in the stern impulse of propagation, none return. 'The whole race is wiped out, utterly exterminated, as soon as it arrives at

cares for the species while the physician cares for the individual.

maturity and physical perfection in order that the perpetuation of the species may be assured.' Our ways, thank God, are not Nature's. Indulge as we may in speculations on the improvement of the race, in practice we care nothing for the species, only for the individual. Reversing Nature's method, we are careless of the type, careful only of the single life. Year by year unwilling witnesses of an appalling sacrifice, as fruitless as it is astounding, year by year we physicians sit at the bedsides of thousands upon thousands, chiefly of youths and maids, whose lives are offered up on the altars of Ignorance and Neglect. Walking always in its shadow, compassed always by its sorrows, we learn to look on death with mingled feelings. There is the death that comes with friendly care to the aged, to the chronic invalid, or to the sufferer with some incurable malady. Very different, indeed, is it with typhoid fever. A keen sense of personal defeat in a closely contested battle, the heart-searching dread lest something had been left undone, the pitifulness of the loss, so needless—and as a rule 'in the morn and liquid dew of youth'—the poignant grief of parents and friends worn out by the strain of anxious days and still more anxious nights—these make us feel a death from typhoid fever to be a Delian sacrifice.[39]

Lives offered on the altars of Ignorance and Neglect.

A Delian sacrifice.

◆

Limitations of the art.

We recognize to-day the limitations of the art; we know better the diseases curable by medicine, and those which yield to exercise and fresh air; we have learned to realize the intricacy of the processes of disease, and have refused to deceive ourselves with half-knowledge, preferring to wait for the day instead of groping blindly in the dark or losing our way in the twilight. The list of diseases which we can positively cure is an ever-increasing one; the number of diseases the course of which we can modify favourably is a growing one; the number of incurable diseases (which is large, and which will probably always be large) is diminishing.[41]

⁂

Insanity.

One of the most remarkable and beneficial reforms of the nineteenth century has been in the attitude of the profession and the public to the subject of insanity, and the gradual formation of a body of men in the profession who labour to find out the cause and the means of relief of this most distressing of all human maladies. The reform movement inaugurated by Tuke in England, by Rush in the United States, by Pinol and Esquirol in France, and by Jacobi and Hasse in Germany, has spread to all civilized countries, and has led not only to the amelioration and improvement in the care of the insane, but to a scientific study of the subject which has already been productive of much good. In this country, while the treatment of the insane is careful and humanitarian, the unfortunate affiliation of insanity with politics is still in many States a serious hindrance to progress.[5]

⁂

Doctor and nurse—always with us.

There are individuals—doctors and nurses, for example—whose very existence is a constant reminder of our frailties; and considering the notoriously irritating character of such people, I often wonder that the world deals so gently with them.

The presence of the parson suggests dim possibilities, not the grim realities conjured up by the names of the persons just mentioned; the lawyer never worries us in this way, and we can imagine in the future a social condition in which neither divinity nor law shall have a place, when all shall be friends and each one a priest, when the meek shall possess the earth; but we cannot picture a time when birth, and life, and death shall be separated from that 'grizzly troop' which we dread so much, and which is ever associated in our minds with 'physician and nurse.' [14]

◆

Intemperance.

And a third factor, most important of all, illustrates the old maxim, that more people are killed by over-eating and drinking than by the sword. Sensible people have begun to realize that alcoholic excesses lead inevitably to impaired health. [5]

◆

A man may take four or five drinks of whisky a day, or even more, and think perhaps he transacts his business better with that amount of stimulant; but it only too frequently happens that early in the fifth decade, just as business or political success is assured, Bacchus hands in heavy bills for payment, in the form of serious disease of the arteries or of the liver, or there is a general break-down. [5]

While temperance in the matter of alcoholic drinks is becoming characteristic of Americans, intemperance in the quantity of food taken is almost the rule. Adults eat far too much; the physicians are beginning to recognize that early degenerations, particularly of the arteries and of the kidneys, leading to Bright's disease, which were formally attributed to alcohol, are due in large part to too much food.[5]

◆

Alcohol.

(1) Unanimity of opinion has not been reached on the question of alcohol as a food; the balance of evidence is in favour of the view that it does so act.

(2) A healthy man does not require alcoholic stimulants of any kind.

(3) So far as actual damage to the machine, a moderate quantity of beer or spirits, taken at luncheon or dinner, seems to have no special influence one way or another.

(4) The danger lies in excess, but this is not easy to define. A man who drinks between meals drinks too much. A man who takes three or four glasses of spirits daily is certainly drinking to excess. He may feel no ill effects at the time, but continued for years the practice may damage seriously his constitution. To get the necessary satisfaction he must inevitably increase the daily amount, and such a man is always confronted by the terrible danger of permanent enslavement.

Shakespeare gets to the root of the alcohol question in his well-known statement—'Good wine is a good, familiar creature *if it be well used.*'[46]

◆

Style in writing.

Naturally studious, fond of poetry, history, biography, and literature in general, and not for long tied and bound in the chains of general practice, Bartlett had ample opportunities to cultivate his mind. He says in one of his letters to Green (dated Pittsfield, Nov. 1, 1835):—'I pass a good deal of my time here quite alone, so that I find myself whiling away the hours in meditation much oftener than when engaged in the more varied and active affairs of business at home. I think that I always leave Pittsfield with the better and purer part of my being somewhat strengthened.' Burton concludes his immortal treatise with the advice, 'Be not solitary, be not idle,' but the true student, in some part of his life at least, should know the 'fruitful hours of still increase.' For many years Bartlett enjoyed a leisure known to-day to few professors of medicine, the fruits of which are manifest in his writings. Among his contemporaries in the profession there were brilliant writers—Samuel Henry Dickson, Jacob Bigelow, J. K. Mitchell—but in a style so uniformly high and polished, yet withal so plain, not one of them approached Bartlett. Compare, for example, Samuel Jackson's *Principles of Medicine*, written in 1832, with the first edition of the *Fevers* (1842)—the one pompous, involved, obscure; the other clear, direct, simple. For style in his medical writings Bartlett may be called the Watson or the Trousseau of America.[42]

⁂

Poetry—a divine madness.

We have the very highest authority for the statement that 'the lunatic, the lover, and the poet, are of imagination all compact.' In a more comprehensive division, with a keener discernment, Plato recognizes a madness which is not an evil, but a divine gift, and the source of the chiefest blessings granted to men. Of this divine madness poetry occupies one of the fourfold partitions. Here is his definition:—

> 'The third kind is the madness of those who are possessed by the Muses; which, taking hold of a delicate and virgin soul, and there inspiring frenzy, awakens lyrical and all other numbers; with these adorning the myriad actions of ancient heroes for the instruction of posterity. But he who, having no touch of the Muses' madness in his soul, comes to the door and thinks that he will get into the temple by the help of art—he, I say, and his poetry are not admitted; the sane man disappears and is nowhere when he enters into rivalry with the madman.'[18]

⁂

The poet's gift.

Here, in a few words, we have expressed the very pith and marrow of the nature of poetry, and a clearer distinction than is drawn by many modern writers of the relation of the art to the spirit, of the form to the thought. By the help of art, without the Muses' madness, no man enters the temple. The poet is a 'light and winged and holy thing,' whose inspiration, genius, faculty, whatever we may choose to call it, is allied to madness—he is possessed or inspired. Oliver Wendell Holmes has expressed this very charmingly in more modern terms, speaking of his own condition when composing the *Chambered Nautilus*: ‘In writing the poem I was filled with a better feeling, the highest state of mental exaltation and the most crystalline clairvoyance that had ever been granted to me—I mean that lucid vision of one's thought and all forms of expression which will be at once precise and musical, which is the poet's special gift, however large or small in amount or value.’ To the base mechanical of the working-day world, this lucid vision, this crystalline clairvoyance and mental exaltation is indeed a madness working in the brain, a state which he cannot understand, a Holy of Holies into which he cannot enter. [18]

◆

Verse-writing physicians.

It is remarkable how many physicians write poetry, or what passes as such. I have been told of a period in the history of the Royal College of Physicians of London when every elect (censor), as they were called, had written verses. Some begin young, as did Bartlett; others become attuned in the deep autumnal tone of advancing years, when, as Plato tells us in the *Phaedo*, even Socrates felt a divine impulsion to make verses before quitting the prison-house. Those of us who have read the epic of the late distinguished Professor George B. Wood, of the University of Pennsylvania, entitled, *First and Last*, published when he was sixty-four, will devoutly hope that professors of medicine, when afflicted with this form of madness, will follow his example and publish their poems anonymously and in another country. Jacob Bigelow, too, when nearly seventy, 'darkened sanctities with song' with his American *Rejected Addresses.*[42] (*Eolopoesis.*)

◆

His master-passion.

All the while Keats was 'budding patiently,' feeling his powers expand, and with the 'viewless winged Poesy' taking ever larger flights. An absorption in ideals, a yearning passion for the beautiful, was, he says, his master-passion. Matthew Arnold remarks it was with him 'an intellectual and spiritual passion.' It is 'connected and made one,' as Keats declares that in his case it was, 'with the ambition of the intellect.' 'It is,' as again he says, 'the mighty abstract idea of Beauty in all things.'[18]

◆

Beauty is truth.

Listen to one or two striking passages from his letters:—'This morning Poetry has conquered,—I have relapsed into those abstractions which are my only life.' 'I feel more and more every day, as my imagination strengthens, that I do not live in this world alone, but in a thousand worlds. No sooner am I alone than shapes of epic greatness are stationed around me, and serve my spirit the office which is equivalent to a king's body-guard. Then "Tragedy with scepter'd pall comes sweeping by."'

'What the imagination seizes as beauty must be truth,' the expression in prose of his ever memorable lines:—

> 'Beauty is truth, truth beauty,—that is all
> Ye know on earth, and all ye need to know.' [18]

❧

The critic and the poet.

The truth is no event in Keats's life so warmly commends him to us, or shows more clearly the robustness of his mind, than his attitude in this much discussed episode (*Endymion*). In the first place, he had a clear, for so young a man an extraordinarily clear, perception of the limitation of his own powers and the value of his work. The preface to *Endymion*, one of the most remarkable ever written, contains his own lucid judgement. He felt that his foundations were 'too sandy,' that the poem was immature, feverish attempt, in which he has moved, as he says, from the leading-strings to the go-cart. Did any critic ever sketch with firmer hand the mental condition of a young man in transition?

> 'The imagination of a boy is healthy, and the mature imagination of a man is healthy; but the space of life between, in which the soul is in a ferment, the character undecided, the way of life uncertain, the ambition thick-sighted; thence proceeds mawkishness, and all the thousand bitters which those men I speak of must necessarily taste in going over the following pages.' [18]

A long shadowy group.

But as I speak, from out the memory of the past there rises before me a shadowy group, a long line of students whom I have taught and loved, and who have died prematurely—mentally, morally, or bodily. To the successful we are all willing and anxious to bring the tribute of praise, but none so poor to give recognition to the failures. From one cause or another, perhaps because, when not absorbed in the present, my thoughts are chiefly in the past, I have cherished the memory of many young men whom I have loved and lost. *Io victis!* let us sometimes sing of the vanquished! Let us sometimes think of those who have fallen in the battle of life, who have striven and failed, who have failed even without the strife. How many have I lost from the student band by mental death, and from so many causes—some stillborn from college, others dead within the first year of infantile marasmus, while mental rickets, teething, tabes, and fits have carried off many of the most promising minds. From improper feeding within the first five fateful years scurvy and rickets head the mental mortality bills of students. To the teacher-nurse it is a sore disappointment to find at the end of ten years so few minds with the full stature, of which the early days gave promise. Still, so widespread is mental death that we scarcely comment upon it in our friends. The real tragedy is the moral death which, in different forms, overtakes so many good fellows, who fall away from the pure, honourable, and righteous service of Minerva into the idolatry of Bacchus, of Venus, or of Circe. Against the background of the past these tragedies stand out, lurid and dark, and as the names and faces

Those who have fallen in the battle of life.

The mental death.

The moral death.

of my old boys recur (some of them my special pride), I shudder to think of the blighted hopes and wrecked lives, and I force my memory back to those happy days when they were as you are now, joyous and free from care, and I think of them on the benches, in the laboratories, and in the wards—and there I leave them.[45]

◆

'Inheritors of unfulfilled renown.'

Less painful to dwell upon, though associated with a more poignant grief, is the fate of those whom physical death has snatched away in the bud or blossom of the student life. These are among the tender memories of the teacher's life, of which he does not often care to speak, feeling with Longfellow that the surest pledge of their remembrance is 'the silent homage of thoughts unspoken.' As I look back it seems now as if the best of us had died, that the brightest and the keenest had been taken, and the more commonplace among us had been spared. An old mother, a devoted sister, a loving brother, in some cases a broken-hearted wife, still pay the tribute of tears for the untimely ending of their high hopes, and in loving remembrance I would mingle mine with theirs. What a loss to our profession have been the deaths of such true disciples as Zimmerman, of Toronto; of Jack Cline and of R. L. MacDonnell, of Montreal; of Fred Packard and of Kirkbride, of Philadelphia; of Livingood, of Lazear, of Oppenheimer, and of Oechsner, in Baltimore—cut off with their leaves still in the green, to the inconsolable grief of their friends!

INDEX

Agnostic, visions of an, 102.
Alcohol, 263.
Ambition, the highest, 181.
American medicine, 22.
— peripatetic teacher, the early, 48.
Andral and Louis compared, 136.
Anglo-Saxon, the practical, 65, 66.
Apathy, the physician's most dangerous foe, 204.
Arnold, Matthew, the death he wished for, 249.
Art of detachment, the, 85, 87.
— of giving, 124.
Authority, vice of, 14.
Autopsies, value of, 178.
Avocation, advisability of having, 178.

Battle of life, those who have fallen in the, 269.
Beaumont, William, 53; the man and his opportunity, 4.
Beauty is truth, 267.
Bell, John, 179.
Bichat, 55.
Biology and the humanities, 58.
Books, 160; value of, 159; by themselves not enough, 161.
Borderland pharmaceutical houses—the practitioner's foes, 194.
Bovell, James, 45.
Brain-dusting, quinquennial, an essential, 180.
Breeding and pasture, 58.
Broussais, 21.
Browne, Sir William, his pocket library, 159.
Callousness, value of, 95.
Catholicity, 164.
Charcot, J. M., a cosmopolitan, 16; his attractive personality, 17; a teacher without attempt at display or effort, 17; his method a clinical lecture without volubility, 17.
Charity, 116, 120; of the hospital, 123; the art of giving, 124.
Charlatanism, 85.
Chauvinism, 70; collegiate, and dangers of in-breeding, 155; in the practitioner, 207.
Cheek, 134.
Clergy, the, and physic, 193.
Clinical experiments, 28.
Collegiate chauvinism, and dangers of in-breeding, 155.
Common sense, 256.
Concentration, and thoroughness, 132; its drawbacks, 133.
Conservatism and old fogeyism, 240.
Consultant, the, 212; the second period, 212; his brain is his capital, 212; and the consultation, 213; his function, 213; the unpleasant features, 214; note-taking and time required, 215; value of stenography, 217; his opportunities in smaller towns, 217.
Credo of a physician, 78.
Critic and the poet, the, 268.
Cui bono? 67.
Culture, 59.
Curse of nationalism, 71.

Darwin, Charles, and J. Leidy, parallel between, 47 ; 'stretching the *pia mater*,' 48.
Death, pathos of early, 248 ; sudden, 248 ; Matthew Arnold's wish, 249 ; the physician and the problem, 249 ; 'clean forgotten, like the dead man out of mind,' 250 ; communion of saints and the busy life, 250 ; how man dies, 251 ; parting, 256 ; a long shadowy group, 268 ; those who have fallen in the battle of life, 269 ; the mental, 269; the moral, 269.
Debt to our times, 100.
Defeat, 110.
Delian sacrifice, a, 260.
Delilah of the press, 256.
Democracy, tyranny of, 24; in medicine, 72.
Detachment, art of, 85, 87 ; intellectual, 86.
Devotion, and heroism, 110; to duty, 111.
Diagnosis, not drugging, 190.
Dilettante, the, 133.
Disaster, should be faced boldly, 110.
Discipline of science, 80.
Disease, nature and, 78.
Doctor and nurse, always with us, 261.
Doctors, quarrels of, 114; friendly intercourse needed, 115 ; training an important factor, 115 ; mutual concessions necessary, 117 ; attitude of mind the all-essential to promotion of concord, 117; say a good word for the 'off colour' man, 118 ; tittle-tattle, 121 ; the wagging tongues, 122.
Dover, Thomas, a good fighter and a good hater, 37 ; discoverer of Robinson Crusoe, 38 ; 'Dover's Powder,' 38.
Dreamer, the, 257.
Dreams, 124.
Drugs, the most uncertain element in our art, 116.
Duty, devotion to, 111.

Education, medical, what it is, 128 ; its aims and objects, 128 ; a life course, 142 ; practical, 151. *See also* Medical art.
Equanimity, 256.
Eryximachus, 24.
Evolution, 24.
Examinations, stumbling-blocks and rocks of offence, 145.
Experience, 152, 207 ; and the general practioner, 202.
Experiments in the laboratory, 27 ; clinical, 28.

Failure, 95.
Faith, science and, 248.
Fate, the practitioner's, 210.
Fevers, differentiation of, 23.
Foreign travel, 169.
France, honours her great men, 17.
French school in the 'thirties,' a medical student's day at, 137.
Future, the, schemes for, 256.

Gehazis, the, 107.
General practitioner, the, 198 ; the best product of our profession, 198 ; experience and the, 203 ; qualities of the, 208. *See also* Practitioner.
Goldsmith, Oliver, compared with O. W. Holmes, 39.
Gospel of living, the, 257.
Great men, 100.
Greeks, back to the, 26.
Gynaecologist, the, 185.

Harvey, 31.
Heart, incorruptible treasures of the, 59 ; the honest, 120.
Heroism and devotion, 110.
Historical study, value of, 12.

Holmes, Oliver Wendell, 38; his 'one-hoss shay,' 38; the American Goldsmith, compared with the English Goldsmith, 39; compared with Charles Lamb, 39; studied puerperal fever, 39; his great contribution to science, 40; an historic paragraph quoted, 41; his conclusion that puerperal fever is not a misfortune but a crime, 41; essay on Puerperal Fever and the *Chambered Nautilus*, 42.
Homoeopathy, 116.
Honest heart, the, 120.
Hospital, charity of the, 123; students in, 152. *See also* Medical art, teaching the.
Howard, Palmer, an ideal student-teacher, 44; alert to new problems, 45.
Humanities, biology and the, 58.
Humbug, 80.
Humility, 81, 82; reverence for truth the fruit of, 82.
Humour, sense of, an essential, 112.
Hunter, John, 31.
Hutchinson, Jonathan, 3.

Ideals, value of, 105; and methods, 107.
Ignorance, one of the physician's great foes, 203; and Neglect, lives offered on the altar of, 260.
Immortality, of the flesh, 252; value of a belief in, 253; *confessio fidei*, 254.
Immutability, man's, 192.
Imperturbability, 94; often mistaken for hardness, 95.
In-breeding, in the University, 155; dangers of, and collegiate chauvinism, 155.
Incorruptible treasures of the heart, 59.
Independence, practitioner's mental, 206.
Index Catalogue, the, 158, 177.
Infantilism in the teacher, 165.
'Inheritors of unfulfilled renown,' 270.
Insanity, 261.
Inscrutable face, value of an, 96.
Intellectual detachment, 86.
Intemperance, 262.
Isolation, 133.

Johns Hopkins Hospital, instruction in the medical art its greatest work, 150.

Keats, John, his master passion, 267.
Killing routine, 139.
Knowledge, sense and wisdom contrasted with, 175.

Laboratory, experiments in the, 27; 'the lock and key,' 73; the home, 192.
La crise de quarante ans, 242.
Laënnec, 28.
Lamb, Charles, compared with O. W. Holmes, 39.
Laws of nature must be discovered, not invented, 136.
Leaven of life, the, 61.
Leidy, Joseph, his patient spirit, kindly disposition, and sustained zeal, 47; his 'ataraxia,' 47; parallel between him and Darwin, 47; 'stretching the *pia mater*,' 48.
Lessons of life, the three great, 103.
Library, value of the local, 158; Index Catalogue, 158, 177; instructors, 159; the working, 177.
Life, leaven of, 61; the busy, useful, and happy, 100; poetry of, should be recognized in the humdrum routine, 111; the danger of the busy, 196; the strenuous, nemesis in, 234; philosophy of, 236; the calm, contemplative, 245; two views in, 256.

Linacre, 4, 22.
'Lock and key' laboratory, the, 73.
Locke, John, character of, 2; his influence, 2.
Loneliness, persistency in the midst of, 110.
Lonely road, the, 209.
Louis, 31; practised in Odessa for four years, 32; returned to hospitals for six years for clinical study, 32; his minuteness of inquiry and accuracy of description, 33; his method spoken of with contempt, 33; but later applauded and imitated, 34; introduced the Numerical Method, 34; by which is obtained facts upon which the edifice of medicine must rest, 34; his channels of influence, 35; his teaching and influence, 35; his American pupils in Paris between 1830 and 1840, 39; his influence through his pupils, 91; compared with Andral, 136.
Love, the spirit of, 123.

MacDonnell, Richard Lea, 44.
Man, the measure of the school, 141; the self-satisfied, 162; immutability of, 192; mutability of, 192; a medicine-taking animal, 193; mind the measure of, 258.
Marriage, 220; hopeless passion, 220; emotions on ice, 220; the two goddesses, 221.
Masters in medicine, 90
Medical art, the, is world-wide, 142; teaching the, 145; study of the, 148; some of the difficulties of, 148; in practice a theoretical training alone is inadequate, 149; instruction in, the greatest work of the Johns Hopkins Hospital, 150; necessity of practical experience, 152; difficulty of judging cases, 152; probability the guide of life, 153; limitations of, 260.
Medical education. *See* Education.
Medical Society, the, 161; is the safeguard against baneful individualism, 161.
Medicine, American, 22; back to the Greeks, 26; in America, reform in, 28; in America at opening of nineteenth century, 30; democracy in, 72; masters in, 90; uncertainties of, 153; history of, 177; new school of, 190.
Methods and ideals, 107.
Microscope, invention of, 29.
Mind, nickel-in-the-slot attitude of, 150; the measure of man, 258.
Mind-training, 132.
Missionary work, 89; as willing to teach as to be taught, 90.
Mitchell, Weir, 14.
Morton, Richard, 20.
Mutability, man's, 192.

Narrow spirit, the, 167.
Nationalism, the curse of, 71.
Nature, and disease, 78; a, 'sloping towards the southern side,' 112; laws of, must be discovered, not invented, 136; inexorable, 259; cares for the species while the physician cares for the individual, 259.
Nature-physicians, the, 20.
Nautilus, the Chambered, O. W. Holmes's, 42.
New school, the, 67.
New student, the, 49.
Nineteenth century, 53; its gift to mankind, 13; medicine in America at opening of, 30.
Nurse, the, 124; the discreet, 94; Romola the, 124; and doctor, always with us, 261.

Out-patient department, work in, 227.

Pain, 67.
Past, the, 24.
Patience, 110.
Pepper, William, a strong soul, 7; a leader, 8; a child of fortune, 8; a modern Greek, 9; a cultured Hellene, 18; an organizer, 19; undiminished activity to the last, 19.
Perfection, artistic sense of, 77.
Peripatetic life, advantages of, for the teacher, 167.
— teacher, the early American, 48.
Persistency in the midst of loneliness, 110.
Physic, the clergy and, 193.
Physician, the, qualities of, 64; the high mission of, 66; cosmopolitan character of, 73; *credo* of a, 78; the true, 171; three periods of his life, 173; and the problem of death, 249. *See also* Practitioner.
Physicians, two sorts of, 171; verse-writing, 266.
Pills and potions, 88, 193.
Pioneer spirit, the, 52.
Pluralist, the, 182.
Poet, the critic and the, 268.
Poet's gift, the, 265.
Poetry, a divine madness, 265.
— of life, should be recognized in the humdrum routine, 111.
Potions, pills and, 88, 193.
Practical education, 151.
Practice, and science, 74; isolation of, 208.
Practitioner, the, dead mentally in ten years without study, 174; simply seeing not all, 175; value of note-taking, 175; habits of routine and system, 176; must play the game fair, 176; only way to make real progress, 176; the desiderata of every young doctor, 177; his working library, 177; should have an avocation, 178; should be careful in his publication, 178; his studiousness may be a stumbling-block, 179; student habits in a large city, 179; his difficulties, and how he may overcome them, 179; quinquennial brain-dusting essential, 180; end of the second lustrum, 180; the highest ambition—the cultivated general practitioner, 181; observation of facts, 191; the home laboratory, 192; his foes—the borderland pharmaceutical houses, 194; danger of the busy life, 196; the busy doctor, 196; the general practitioner, 198; the general practitioner the best product of our profession, 198; dangers of prosperity, 198; politics, 198; opening a sanatorium, 199; moving to a larger place, 199; the routinist, 199; the rationalist, 201; corroding effect of routine, 202; experience and the general practitioner, 202; the man who does not read, 202; his three great foes—ignorance, apathy, and vice, 203; the spirit of humility, confidence, just pride, and hope, 206; his mental independence, 206; self-satisfaction, 206; experience, 207; chauvinism in the, 207; qualities of the, 208; isolation of practice, 208; the lonely road, 209; words to soothe the heartache, 209; his fate, 210; success, 211. *See also* General Practitioner *and* Physician.
Presenility, 243.
Press, Delilah of the, 256.
Probability, 153.
Profession, the, what it is, 129.
Professional sensitiveness, 84.
Professor, the, 154.
Progeria in the teacher, 165.
Pseudo-science, 195.

Public, the credulous, 258.
Publication, 178.
Puerperal fever, studied by O. W. Holmes, 39; Holmes's conclusion that its existence is not a misfortune but a crime, 41; essay on, by Holmes, 42.

Rationalist, the, 201.
Readers, four sorts of, 160.
Reaper, the, often not the sower, 158.
Reform in medicine in America, 28.
Registration, interprovincial and international, 25.
Responsibility and proportion, sense of, 140.
Romola the nurse, 124.
Routine, and system, habit of, 176; the only way to make real progress, 176; corroding effect of, 202; value of, 231.
Routinist, the, 199.

Scepticism, value of, 139.
School, true greatness of a, 140; man the measure of the, 141.
Science, the last and chief blessing, 13; and practice, 74; discipline of, 80; and faith, 248; and the spirits, 251.
Sciences, the, essential, 81.
Scientific men, value of, 141.
Self-satisfied man, the, 162.
Sense of humour, an essential, 112.
Sensitiveness, professional, 84.
Silent workers, the, 96.
Specialism, 181, 183; advantages of, 183; the public and, 184; dangers of, 186.
Specialist, the, 182; dangers of adopting a speciality too early, 182; his dangers, 186; how he may avoid them, 186; narrow and pedantic specialists, 187; advantages of study of physiology and pathology to, 187; education and the, 188; societies and the, 189.
Spirit of love, the, 123.
Stenography, value of, 217.
Student, the, 130; how you may know him, 131; two types of, 131; habits of concentration and thoroughness, 132; the dilettante, 133; his isolation, 133; drawbacks of concentration, 133; should get denationalized early, 133; the self-conscious, 134; should study men, 134; distinction between self-confidence and 'cheek,' 134; the waiting years, 135; thorough regard for truth and elevation of mind essentials to the accurate observer of disease, 136; a day at the French school in the 'thirties,' 137; the delights of acquiring positive information and method of obtaining, 137; relation of teacher to, 138; his sense of responsibility and proportion, 140; his education a life course, 142; the genius, 142; examinations, 145; the nickel-in-the-slot attitude of mind, 150; the ward as a class-room, 151; work in the hospital, 152. *See also* Medical art, teaching the.
Student life, the, 104.
Studiousness, may be a stumbling-block, 179.
Study, method of, 131; the time for, 131.
Study men, 134, 179.
Style in writing, 264.
Success, 211.
Sydenham, 4, 31; scepticism of, 4.

Teacher, relation of, to student, 138; the good, 142; infantilism in the, 165; progeria in the, 165; advantages of the peripatetic life for the, 167; the fossilized, 240.
Teachers, and teaching, 138;

four classes of, 139; killing routine saps vitality of, 139.
Teacher's life, three periods in the, 243.
Thinkers, 143.
Thinking, a University function, 144.
Thoroughness, 84.
Three great lessons of life, the, 103.
Time is money, 173.
Times, duty to better our, 51; our debt to, 100.
Tittle-tattle, 121.
Tongue, the careless, 94; unruly member, the, 94.
Training, an important factor, 115.
Travel, 164; and change, 168; foreign, 169.
Truth, fragments of, 79; hard to reach, 80; reverence for, the fruit of humility, 82; what it is, 83; not recognizing it is mind-blindness, 83; and elevation of mind, thorough regard for essentials to the accurate observer of disease, 136.

Uncertainties of medicine, 153.
Uncharitableness, the most pernicious of all vices, 118; a thoughtless evil at times, 118; 'the faint praise that damns,' 119.
University, function of to think, 144.
— in-breeding in the, 155.
— spirit, the, 156.
— teaching staff, value of changes in, 154.
Unruly member, the, 94.
Utility cry, the, 103.

Vaso-motor control, 95.
Verse-writing physicians, 266.
Vice, of authority, 14; one of the physician's great foes, 205.
Virchow, Prof., visit to, 6; the citizen, 7; the sanitarian, 54.
Visions of an Agnostic, 102.
Voiceless, the, 101.
Volte-face often necessary, 52.

Wagging tongues, the, 122.
Waiting years, the, 135, 172, 173.
Walk with the young, 244.
Wanderjahre, need of the, 70.
Ward, the, as a class-room, 151.
West, the, the future with, 164.
Wisdom, 66; sense and, contrasted with knowledge, 175.
Women, old and new, 101.
Work, the master word, 223; get a relish for, 224; haste not to be encouraged, 224; *ohne Hast*, *ohne Rast*, 224; live for the day, 224; the day's work, 225; influence of isolation, 225; industry essential at all ages, 226; the out-patient department, 227; the small field, 227; system to be cultivated, 227; value of routine, 231; dangers of overwork, 231; nemesis in the strenuous life, 234; need of an avocation, 235; the man, not the doctor, 236; idleness, 236; failure, 237.
Workers, the silent, 96.
Working library, the, 177.
Worry, 233.
Writing, style in, 264.

Young doctor, the desiderata of every, 177.

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